

Personal Identity, Psychological Continuity and Externalism

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Introduction

Answering questions about personal identity requires us to make certain judgements concerning what a person is, such that he or she can persist through time, but these judgements often hide assumptions that affect the way our assessment operates. When discussing personal identity, the way we take the mind to be has significant effect on how we characterise persons and the importance we place on identity. So what is it we care about when we are concerned about the future of our own person?

Of the obvious candidates psychological continuity or similarity has been, in general, the preferred option. For someone to be one and the same person over time Y today must have some of the beliefs, desires, intentions and memories that X had yesterday, as well as some memories of the events that happened to X yesterday. The psychological continuity account is thus a development of Locke's memory criterion. It has been developed by, among others, Derek Parfit who argues that personal identity is psychological continuity with the right kind of cause (Relation R) obtaining uniquely, his formula being:

PI = Relation R + uniqueness.

Uniqueness is an addition which allows identity to be differentiated from survival thus dealing with the problem scenario of reduplication or branching¹. Whilst an individual being the same person over time depends on whether any other individual exists who can also claim to be the same person, I can survive even though I am not the only individual who is

¹ I will use reduplication, duplication and branching interchangeably throughout my dissertation to mean the same process: a qualitatively identical copy being produced.

psychologically continuous with a person existing at an earlier time. To survive is just to be psychologically continuous with an earlier individual.

For Parfit, psychological continuity must have the right kind of cause, which ensures that both survival and personal identity require more than mere psychological similarity between two individuals for the relation of survival or identity to hold. Since survival is a one-many relation it can withstand reduplication. Parfit's response to the problem of reduplication is to deny that any account of personal identity can avoid the problem. However, he suggests, since survival is not affected by this problem, we should concern ourselves with survival, and not with personal identity.

In my dissertation I will question the merit of Parfit's formulation of personal identity. Specifically, I will examine various ways in which a psychological account of personal identity, similar to that of Parfit, might avoid the possibility of reduplication. In chapter one I will present the psychological account of personal identity and Parfit's reasons for preferring survival to identity. In the next chapter I will examine a criticism made against Parfit concerning causality, which will introduce externalism about mental content, the topic of the third chapter. After attempting to avoid the problem of reduplication by invoking arguments for externalism about content, I will examine another option: active externalism, or vehicle externalism as it is sometimes called. The fifth chapter will then focus on embodiment, a last attempt to avoid reduplication without ditching psychological continuity as our criterion of personal identity. The motivation for exploring embedded and embodied approaches to cognition is that they cast doubt on the easy separation of brain and body which is often taken for granted in the identity literature.

In chapter three it will become clear that, whilst accepting an externalist position about mental content casts doubt on the possibility of psychological similarity without a causal connection between two person-stages, cases of reduplication are unaffected by the debate about wide and narrow content.

Discussion in chapter four and five takes a similar vein, as I try to establish a stronger notion of psychological continuity, based on the consequences of a view of the mind as embodied and embedded in an environment. Such a view reviews standard conceptions of the relation between mind and body as relatively inconsequential. The claim is not that body and brain interact at a basic level, but that cognitive processing incorporates body and environment in such a way that the mind should be understood as a larger system of which the brain is just a part. With this in mind, the simple assumptions by which brains are imagined to be transplanted into new bodies, and agents are said to be teletransported to new

environments should be reviewed. Whilst embodiment provides us with some reasons to re-evaluate our understanding of brain transplant thought experiments, we will see that the nature of teletransportation is consistent with the mind as both extended and embodied.

The Extended Mind Hypothesis and theories about embodiment offer a new, if ultimately unsuccessful, kind of externalist response to the duplication cases.

Chapter 1

My target in this paper is an account of personal identity according to which being one and the same person over time involves exhibiting nothing but psychological continuity over time, where this psychological continuity is thought to be separable from any sort of bodily continuity. As such a prime object of deliberation will be Derek Parfit's account in *Reasons and Persons*², but I do not intend my arguments to be restricted to Parfit's position. My remarks serve as a critique of any psychological account according to which similarity of beliefs, desires, intentions and memories, in conjunction with a causal connection, is sufficient for personal identity. I will make reference to Sydney Shoemaker's work also, but, since Parfit's *Reasons and Persons* furnishes us with the most thorough psychological account yet, my remarks will mostly revolve around claims made in his book. Moreover, Parfit's further claims about what he calls 'survival' give us a further reason to try to adapt his account of psychological continuity so that it will not be subject to reduplication.

In this chapter I will present the psychological account of personal identity, and explain why Parfit thinks his account of survival is of more philosophical significance than a corresponding account of personal identity. The difference between survival and personal identity is merely that in the case of the former I can survive as many individuals, whereas personal identity is a one-one relation – I can only be identical with one future person.

² Parfit, Derek 1987: *Reasons and Persons*, Oxford: Clarendon Press

It is this difference that motivates the direction of my discussion: if we can strengthen the criterion of personal identity so that it will not succumb to the possibility of duplication, then we lose sight of the reason for preferring survival to personal identity.

1.1) The Problem of Personal Identity

The problem of personal identity is rooted in the problem of change – an issue for all kinds of theories of identity. Our question concerns how an object can stay the same and yet be subject to change. This problem is further exacerbated by the difficulty philosophers have had in agreeing about what a person is. The tomato is both green and red; the leaves on the tree are both green and brown. All natural objects seem to undergo change, including persons. Yet whilst a leaf or a tomato are perhaps easily characterised, defining a person is not so simple.

By examining change we are interested in identity over time, or diachronic identity. Although the instantiation of multiple properties at a time is also of issue in matters of identity, change takes place over time. Our problem concerns one object at time t_1 being the same as an object at t_2 despite the properties of the object altering between t_1 and t_2 .

Another distinction to be made is between quantitative and qualitative identity. Two objects may be qualitatively identical, for example two 30cm rulers may be qualitatively identical because they were made in the same factory, from the same mould and from the same kind of plastic. However, they are not quantitatively, or numerically, identical. On the other hand, one object may have a different structure, or be made of different materials at different times, but that does not mean it is not one and the same object over the period. A seedling is the same as the plant it grows into even though they are of different sizes at different times. This is an example of an object changing whilst still retaining its identity. What interests us in discussions of personal identity is primarily quantitative identity, although dramatic changes in qualitative identity may tempt us to claim that quantitative identity has been lost. For example if a political party changes its policies and positions so radically that it is unrecognisable as the party of old, the party-after-doctrinal-change will be given a moniker that differentiates it from the party-before-the-change. Nevertheless, we still think of the party as numerically the same even if we no longer agree with its policies and refuse to vote for it in an election.

Before I move on to discuss the nature of the problem of change for accounts of personal identity, it should also be mentioned that identity is an equivalence relation, meaning the identity relation must satisfy three necessary conditions: transitivity, symmetry and reflexivity.

- Transitivity states that if *a* bears relation *I* to *b*, and *b* bears *I* to *c*, then *a* must also bear *I* to *c*. So if *a* is identical to *b*, and *b* is identical to *c*, then *a* and *c* are also identical.
- For symmetry to hold if *a* is *I* related to *b*, then *b* is *I* related to *a* in the same way. If *a* is identical to *b*, then *b* is identical to *a*.
- Lastly, a relation is reflexive if an object bears the relation to itself, in other words object *a* is identical to itself.

For any object to be one and the same thing over time it must conform to these three conditions.

The significance of change in discussions of personal identity is illustrated by the puzzle of the Ship of Theseus³. The story goes that the ship sets sail and does not return to port for, let's say, twenty years. In that time all the different parts of the ship age and must be replaced. Since they are at sea the crew can only make alterations one at a time. First one plank is replaced with a new one, then another. Each time the new piece of wood is brought to the ship by another vessel and the discarded piece taken away by the same means. When the ship returns to dock twenty years later it is not constituted by a single piece of the original wood and other materials, but by new materials. The dilemma we are left with is whether this is still the Ship of Theseus⁴.

A similar change happens in human beings – over a period of around fifteen years every cell in the human body, excepting some parts of the brain such as the cortex, is replaced⁵. So me-sixteen-years-ago has no biological bodily matter in common with me-today. This is a more radical kind of change than a change in colour, for example. If we want to claim that personal identity just is having the same body we may have to narrow our focus to the brain. How can it be that personal identity is bodily continuity if our bodies, barring our brains, are composed of completely different matter several times over in one lifetime?

³ Plutarch 1960: *The Rise and Fall of Athens: Nine Greek lives*, trans. Ian Scott-Kilvert, London: Penguin, Theseus: 23, p. 28-9

⁴ A further question arises if we imagine that someone has collected together all the rejected planks from the original ship and rebuilt a vessel with them. Now we have two contenders for the title of Ship of Theseus. This problem is analogous to the problem of fission in psychological accounts of personal identity, as we shall see.

⁵ Vince, Gaia 2006: 'Your amazing regenerating body' in *New Scientist*: 2556: <http://www.newscientist.com/channel/health/mg19025561.900-your-amazing-regenerating-body.html;jsessionid=LCFBOAFLMDKE>, accessed 03.08.2007

One answer will be that bodily continuity does not require us to be composed of exactly the same body cells. And in fact bodily continuity does not require this. Over the course of twenty years many of the faculty in a philosophy department will change, however that does not mean that at any point the department ceases to exist. Nevertheless, we must still explain how identity is retained in the face of dramatic changes in the composition of an object.

The four-dimensionalist (or perdurantist) position on the identity of an object withstanding (physical) change is that we should take objects to be space-time worms, the mereological sums of temporal stages. Thus, for one object to persist through time is for it to be constituted by a series of momentary stages⁶. For my current person-stage to be of the same person as a person-stage that existed yesterday the two stages must form a mereological sum with all the other person-stages of that person. Persons are thus long-lived things, but at any one time only a stage of that person exists. Thus the four-dimensionalist can easily account for change. Rather than claiming that change is something that happens to one particular enduring object, change for the four-dimensionalist is a relation between two different stages⁷. When the fruit on the tomato plant changes from green to red as it ripens, there are a number of earlier tomato-stages that are green, followed by a number of later tomato-stages that are red⁸. In this way it is the tomato that changes because a number of its stages exhibit different colours.

A benefit of this view is that it allows us to formulate questions about personal identity explicitly. If we apply the four dimensionalist's theory to the case of persons we can have a series of person-stages, the sum of which is the person in question. When a finger is amputated there will be a person-stage prior to amputation which has ten fingers, and one post-amputation with only nine fingers. We do not lose identity in this case, because the person is constituted by the sum of its various person-stages. As long as the person-stages are connected in a suitable way, then we have no particular problem with change and person identity. The question, of course, remains: what is a suitable relation of connection between person-stages? We cannot claim that stages are suitably connected if they belong to the same person, for it is the reason for this belonging that is in question. So whilst four-dimensionalism enables us to structure questions about identity clearly, we are still looking for the criterion of personal identity.

⁶ Sider, Theodore 1996: 'All the World's a Stage' in *Australian Journal of Philosophy*, 74:3: p. 433

⁷ Hawley, Katherine 2004: *How Things Persist*, Oxford: OUP, pp. 11-12

⁸ See Hawley 2004, pp. 11-14 for a similar example.

1.2) Physical Theories

Bodily continuity has appealed to some as a possible criterion for personal identity, and has some intuitive interest for us. But, in the place of bodily continuity, the standard conception of personal identity holds that psychology is what is significant to being one and the same person. The latter and more recent view is often coincident with some sort of bodily continuity, for example continuity of the brain, but it is not necessarily so. Even when psychological continuity does not require physical continuity of any kind, real world instantiations of psychological continuity seem to coincide with physical continuity. Actual cases of two person-stages being psychological continuous involve, at the very least, brain continuity if not body continuity.

Parfit begins his discussion of personal identity in *Reasons and Persons* by considering the branch-line case⁹. We are asked to imagine that teletransportation is normally a reliable method of transport to distant places, including Mars. On his usual commute to work on Mars Derek goes to the teletransportation device, presses a button and a copy of his mind and body is recorded and transmitted to a similar device on Mars. As this happens his body on Earth is destroyed and a replica (Replica), made of similar matter, is formed on Mars from the information encoded in the transmission. As far as his experience goes, he loses consciousness for a few seconds, and when he wakes up he is on Mars with a body that matches the one he had on Earth a few seconds ago exactly. He can remember what he had for breakfast that morning, how to drive a car and the date of the Battle of Hastings. The aim of the experiment is to persuade us that teletransportation is as good as other means of transport. I maintain my identity when I take a train from Edinburgh to London. So too, Parfit wants us to say, do I maintain my identity when I teletransport from Earth to Mars.

The thought experiment is supposed to tell us something about the nature of personal identity. If it can survive teletransportation then it seems psychological continuity is more important than physical continuity. Derek's body on Mars is similar to his body on Earth, but it is only made out of the same *sort of stuff* as he was on Earth. There is no direct continuity between his body on Earth and his body on Mars. However, unless we identify mental states with specific brain states, then we can think of his mind as existing on Earth at one time and later on Mars, despite the difference in physical matter. And there is a causal connection

⁹ Parfit 1987, pp. 199-200

between his mind on Earth and his mind on Mars. The existence of the mental states of the replica on Mars is due to the information encoded in the transmission device, which in turn is caused by Derek's mental states on Earth.

Another thought experiment is intended to give an even clearer example of personal identity holding in a situation in which there is no (or at least little) physical continuity. Sydney Shoemaker asks us to imagine that two men, Brown and Robinson, undergo surgery which requires the brain to be removed before being replaced in the body¹⁰. However due to a rather unfortunate mix up, Brown's brain is placed in the body of Robinson. The resulting person, which Shoemaker calls Brownson, has the body of Robinson, but the brain of Brown. If we suppose for now that by transplanting the brain we also transplant the mind, then it would seem that Brownson has all the psychological features of Brown, whilst inhabiting Robinson's body. Intuition does suggest that when Brownson regains consciousness he will remember Brown's memories, will have Brown's intentions to go home and have dinner with Brown's wife and after recuperation go back to work in Brown's job. He will also be perplexed that he is now five inches taller than he was yesterday, that his hair has changed colour and that he now wears glasses. It is difficult, Shoemaker tells us, to resist the view that Brownson is Brown, albeit with a different physical shape. The conclusion we are inclined to make is that psychology is more important to us than our particular physical persistence. Specifically, Shoemaker suggests that since Brownson has memories of being Brown, we should trust his claims to be Brown¹¹.

1.3) Memory

In 1694 in the second edition of *An Essay concerning Human Understanding*¹², John Locke made a similar suggestion for a suitable criterion for personal identity: to be one and the same person is to have the memories of events that befell the earlier person. Roughly known as the memory criterion there is *prima facie* appeal to it – our way of knowing that we are one and same over time seems to rely on memory. It is my memories of previous events that convince me that I do persist in time, as it is memory that allows me to relate and equate beliefs I have held in the past with beliefs I hold now. If we wanted to maintain that bodily continuity is significant in personal identity, from the first person perspective it would be

¹⁰ Shoemaker, Sydney & Swinburne, Richard 1984: *Personal Identity*, Oxford: Blackwell, pp. 78-9

¹¹ Shoemaker & Swinburne, 1984, p. 78

¹² Locke, John 1979: *An Essay Concerning Human Understanding*, Oxford: OUP

memory that enabled me to compare my body now with my body in the past. However this is a matter of how it is I come to know that I am the same person over time, rather than what actually ensures that personal identity holds – can memory do the work for the metaphysical fact as well as the epistemological one?

Locke argues that what matters in identity is uniformity of consciousness, in other words, that our capacity to remember previous events makes us one and the same person¹³. Thomas Reid objected to the memory criterion claiming it leads to an inconsistency. We can imagine an elderly professor who can remember his exploits as a student at university, but cannot remember being a young boy who gets a detention for cheating in a test¹⁴. The student did, however, remember his boyhood and the shameful incident. Identity is a transitive relationship, so since the professor remembers being a student, and the student remembers being a boy, then, according to the memory criterion, the professor is the same person as the boy. However, the professor does not have any recollection of being punished for cheating at the test as a boy, so, again given our memory criterion, we will also be inclined to say that he is not the same person.

In response to the allegation made by Reid, a supporter of the memory criterion can alter his account – it is not necessary that one remembers *all* the events that one has experienced, but what is needed is continuity of memory. For the professor to be the same person as the boy there must be a chain of “memory-connected person-stages”¹⁵. This is the most basic formulation of psychological continuity. What is needed for personal identity is merely a matter of memory, but all that is required is a chain of causal memory connections and not a complete store of memories of every event experienced. So our account of personal identity thus far goes:

Personal Identity obtains when each person-stage is connected by strong similarity between the memories of the latter and the events that have happened to the former.

Another problem for the memory criterion is that it has the appearance of circularity. When I define personal identity in terms of memory I am then left with the problem of defining memory. Memory would seem itself to be defined in terms of personal identity – I can remember certain experiences because they are experiences that happened to me, in other words, because I am the same person as the person who experienced those events. I will return to this problem once I have expanded on the kind of continuity that we need for a criterion of personal identity.

¹³ Locke 1979, II: XXVII: §9, p. 335

¹⁴ For a discussion of Reid’s objection see Shoemaker & Swinburne 1984, pp. 80-81

¹⁵ Shoemaker & Swinburne 1984, p. 81

1.4) Psychological Continuity

To claim persons are constituted by memories alone imposes strong restrictions on what it is to be a person. The expansion from memory continuity to psychological continuity, involving other mental states, seems to be instigated by the possibility of amnesia. Shoemaker imagines that a person has amnesia about the events from his or her past, but claims this would not make this individual a different person post-amnesia to the person that existed before the memory-loss occurred¹⁶. It seems there is a lot more to being a person than memory – for example we often consider ourselves to have character traits, ongoing interests and beliefs and intentions about what we will do in the future¹⁷. Thus, there are other elements that are involved in personal identity. Being one and the same person may involve a more general psychological continuity: continuity of beliefs, intentions and desires also. In fact, it is unclear that if an individual was to suffer amnesia that they would continue to have the same beliefs, desires and intentions. Nevertheless, Shoemaker's point stands that personal identity does not consist in memories alone. We can characterise our new notion of personal identity thus:

Personal Identity is the holding of a chain of psychological connections between person stages, involving beliefs, desires, intentions and memories.

Our new account seems to satisfy the amnesia case where a person loses all their autobiographical memory (memory of their personal history) but still has many other psychological states in common with his or her former self. However, some other changes are also necessary. Parfit's psychological criterion is stated as follows:

“(1) There is *psychological continuity* if and only if there are overlapping chains of strong connectedness. X today is one and the same person as Y at some past time if and only if (2) X is psychologically continuous with Y, (3) this continuity has the right kind of cause, and (4) it has not taken a ‘branching’ form. (5) Personal identity over time just consists in the holding of facts like (2) to (4).”¹⁸

For Parfit two person-stages are strongly psychologically connected if they have at least half of the same psychological states in common¹⁹. However, psychological connectedness itself is

¹⁶ Shoemaker & Swinburne 1984, p. 87-88

¹⁷ Shoemaker & Swinburne 1984, p. 87

¹⁸ Parfit 1987, p. 207

¹⁹ Parfit does not explain the necessity of having at least half of the same psychological states in common with a previous person-stage. The claim seems to be an arbitrary one, and it is unclear why he should not simply state that there must be enough psychological states in common, leaving it as an open empirical question as to how many states will constitute enough.

not sufficient for personal identity because identity is a transitive relation, whilst connectedness is not. I can be connected to myself yesterday, but not at all to myself five years ago. Personal identity is thus psychological continuity – all of my person-stages are continuous with one another because they are all linked by a chain of connectedness. I can compare any of my person-stages and what makes them all *my* person-stages is that they all lie within the chain of connections.

1.5) Causality

The causal relation between person-stages plays a significant role in the psychological account, because it is the existence, or lack thereof, of the causal relation that allows us to differentiate between psychological continuity and mere similarity. I can be psychologically similar to my sister because we have similar genes and a similar upbringing, but that does not mean that me-today is a person-stage belonging to the same person as the person-stage that is my-sister-twenty-years-ago. What makes my person-stages psychologically continuous is the causal relation between the experiences, beliefs, intentions and desires each of my past person-stages had, and the memories, beliefs, desires and intentions my person-stage has now. It is the having of certain psychological states by my preceding person-stage that causes me to have at least a portion of those states today. Parfit examines three possible causal relations between the psychological states of one person-stage and the states of another: the narrow view, the wide view and the widest view²⁰.

- On the narrow view I remember an event because I did experience the event and the memory is causally dependent in the normal way on that event²¹. Implicit in holding the narrow view is a commitment to bodily (brain) continuity as this is what normally ensures the retention of some memories, beliefs, desires and intentions²².
- According the wide view I remember an event because of a reliable cause. In this scenario I remember an event because, for example, an evil scientist who is proficient at invasive brain surgery has implanted a memory into my mind²³. In the Brownson case we say that Brownson is Brown because the surgery was a reliable method of Brown's psychological states being retained.

²⁰ Parfit 1987, p. 207-9

²¹ Parfit 1987, p. 207

²² Parfit 1987, p. 208

²³ Parfit 1987, p. 208

- On the widest view any cause will do²⁴. I remember an event because the memory has been uploaded onto a computer system to be passed on to someone else. However a glitch occurs and by accident the memory is planted in my mind.

For Parfit, any cause will do. He rejects bodily continuity in general because he sees nothing special about bodily matter. When we are concerned about a friend, we are not concerned about his physical mass, but about how he feels and thinks – his emotional well-being. Whilst we worry about each other's bodies, for example their health, we do so because we are concerned about a person with a certain character, not because of our concern for their body itself. As to the one part of the body Parfit expresses some concern with, he does so only because it is the part of the body that ordinarily ensures psychological continuity. Parfit admits that the brain is of interest to us to some extent, but since he accepts teletransportation as a possibility, he thinks that a person's psychological states are not identical to their brain. Parfit offers an analogy to explain why he does not think bodies should be considered necessary for psychological continuity. He imagines that advances in the future will allow scientists to create artificial eyes that give a blind person visual experiences by using a lens and suitably small computer²⁵. The blind person's visual experience would depend on this method, whether or not we would want to call what he does as seeing. Similarly, whether or not we say that when an individual teletransports that he continues to be the same person, when teletransportation is successful the relation between resultant and original is as good as personal identity²⁶.

Furthermore, he argues that the cause does not even need to be reliable because the difference between a reliable cause and any cause is trivial. Whether or not the teletransporter works each and every time someone tries to use it is irrelevant to the consequence of successful teletransportation. We should be concerned with whether the desired effect has been achieved in a particular instance, and not with the reliability of the cause in general.

1.6) Quasi-memories

Another important part of the psychological continuity account involves quasi-propositional states. Earlier we discussed the objection that memory can only provide us with a circular definition of personal identity. Parfit and Shoemaker avoid the objection by

²⁴ Parfit 1987, p. 208

²⁵ Parfit 1987, p. 208

²⁶ Parfit 1987, p. 209

introducing the notion of quasi-memories²⁷. A quasi-memory is a memory of an event that did happen but was not experienced by the person with the quasi-memory. For example, I have never been to New York, but it may be possible that I have a quasi-memory of being there. Crucially, there is no difference to my experience of the memory – the memory is just of being in New York from the first person perspective, but not of a particular person, me, being in New York²⁸. So, for something to be a quasi-memory it is necessary that someone had an experience *a*, that I have a memory of experience *a*, my apparent memory of *a* is causally dependent on this other person's having experienced *a*²⁹. Instead of having to explain how it is that personal identity can be defined in terms of memory, which already presupposes diachronic identity, we can apply the concept of quasi-memories. On this view, what we normally call memories are simply a special sub-class of quasi-memories – special in the sense that their content is of events that happened to the person who has the quasi-memory³⁰.

The charge against the psychological account was that it used memories to explain personal identity, even though they presuppose identity because an individual only has memories of the experiences that they have had³¹. However a quasi-memory makes no such assumption. Whilst using memories does require us to specify that the individual with the memory is the same person as the individual who had the experience, using quasi-memories in our criterion forces us to make no such claims. Parfit gets continuity in quasi-memories by appealing to chains of strong connectedness between person-stages³².

The psychological continuity account does not just rely on memories – Parfit extends the quasi- concept to other propositional states. I can have the intention to do something, implying that it will be me who does the thing intended. I may intend to go skiing next winter. Ordinarily we take this to mean that I intend that *I* go skiing next winter. Parfit gives us no explanation of quasi-intentions, and it is not obvious how an intention can be separated from the subject who has the intention, unlike memories of events. My intention to go skiing does not seem merely to be an intention that 'skiing is done'. In fact, I can be sure that skiing will be done next year even though I have no intention myself to book a trip to visit a ski slope³³. Parfit wants the quasi- concept to apply to desires and beliefs also. It is less obvious that either desires or beliefs normally have any 'me' quality which defines them as beliefs rather

²⁷ Parfit 1987, p. 219-223, Shoemaker, Sydney 1970: 'Persons and their Pasts' *American Philosophical Quarterly* 7:4: 269-285.

²⁸ Parfit 1987, p. 221

²⁹ Parfit 1987, p. 220

³⁰ Shoemaker 1970, p. 271

³¹ Parfit 1987, p. 222

³² Parfit 1987, p. 222

³³ I owe David McCarthy for helpful discussion about this issue.

than quasi-beliefs and desires rather than quasi-desires, in the way intentions seem to have a 'me' quality. But as with intentions, Parfit gives no explanation of how we should understand desires and beliefs as special sub-classes of, respectively, quasi-desires and quasi-beliefs.

1.7) Branching

If we return now to the teletransportation case that Parfit describes before he outlines his psychological account we can tackle the problem of reduplication. In a second scenario Derek (*A*) goes to the teletransportation device, but instead of his body being destroyed before the replica is formed on Mars as usually happens, he (*B*) continues to exist on Earth as well as the Martian replica (*C*) being produced³⁴. He (*B*) exists on Earth, and Replica (*C*) exists on Mars. We may have been persuaded earlier that personal identity holds when teletransportation occurs, but now there are two persons claiming to be identical to Derek (*A*) prior to teletransportation.

There are several options in deciding what has happened. Since personal identity is a one-one relation it is clear that personal identity cannot hold between both *A* and *B*, and between *A* and *C*. If this were true then *B* and *C* would have to be numerically identical, rather than merely qualitatively identical, and this is not the case. If we were to believe in a physical criterion for personal identity (i.e. bodily continuity), then the teletransportation case would not be a problem – the replica on Mars does not have bodily continuity with *A*. However, Parfit presents a psychological view and upholds that psychological continuity could be sustained by coded transmission across space. Parfit introduces, therefore, the caveat that personal identity holds if there is no branching.

In this reduplication situation, the psychological states that normally ensure personal identity holds have branched in two. On one branch there is Derek still on Earth (*B*), and on the other there is Replica on Mars (*C*). Our intuitions might tell us that *B* has more right to claim to be the same person as *A* before the teletransportation went so wrong. After all, *B*'s current existence has a normal cause, whilst Replica has a rather unusual claim to existence. However, we should not be too hasty in our assessment. We were only too happy to accept that teletransportation did not contravene the rules of personal identity when the original on Earth was destroyed before the replica was created.

³⁴ Parfit 1987, p. 199-200

The thought experiment is an example of a fission puzzle. The possibility that sets of psychological states can undergo fission, giving rise to two or more possible persons who all claim personal identity with one original has been met with a variety of responses. Parfit's response, as noted, is to claim that personal identity only holds uniquely. So for psychological continuity to give us personal identity it must obtain uniquely.

Another response comes from perdurantist David Lewis. Lewis accepts the four-dimensionalist view that whilst persons are long-lived objects, these persons are made up of momentary stages³⁵. In asking if a person is the same over time we ask if person-stage x at time t_1 belongs to the same person as person-stage y at t_2 , where a person is the sum of all his person-stages. For Lewis fission should not be understood as the creation of two persons out of one, but of the temporary coincidence of two persons who have shared a series of person stages³⁶. So, if asked how many people there are, Lewis would respond both prior to and post fission that there are two³⁷.

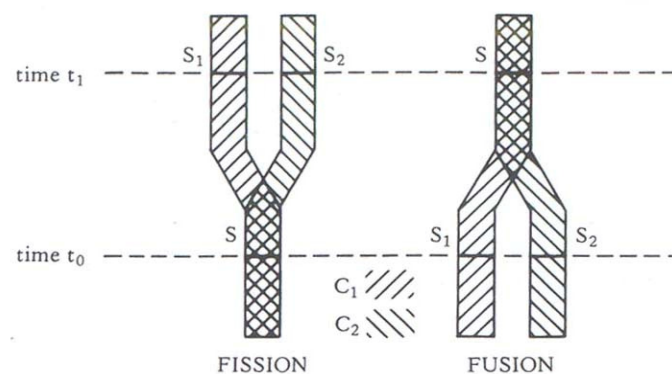


Diagram A³⁸: S, S_1 and S_2 are all person-stages, whilst C_1 and C_2 are, according to Lewis, persons

In *Diagram A* we see how Lewis understands a case of fission. At time t_0 we have one person-stage, S, and at this time persons C_1 and C_2 are coincident – they share the same

³⁵ Lewis, David 1983: 'Survival and Identity' in *Philosophical Papers Volume I*, New York & Oxford: OUP, pp. 55-77

³⁶ Lewis 1983, pp. 61-63

³⁷ Lewis 1983, pp. 61-65

³⁸ Lewis 1983, p. 62

person-stage. Later at time t_1 , after fission has occurred, there are two person-stages; S_1 is a person-stage of C_1 only, while S_2 is a person-stage of person C_2 only³⁹.

This response is contrary to common sense⁴⁰. Before fission has occurred I would object to someone referring to me as two different persons. If I am walking along moments before fission will occur and someone, glancing at me, is asked how many people he sees, he will answer that he sees one person.

Lewis deals with this incongruity by suggesting we count by stages⁴¹. Before fission at any particular time there is one stage present, whereas after fission there are two separate stages, one belonging to *Derek*[^] and one belonging to *Derek*^{*}. Before fission *Derek*[^] and *Derek*^{*} shared stages, but post fission they do not. Counting in this way might deal with the immediate problem of how many people there are at any one time, but it is contrary to our intuitions⁴². Lewis suggests we imagine that someone asks us how many roads he must cross to get to a particular destination⁴³. If he travels in a straight line he will cross what appears to be one road, but is in fact a point at which three roads converge⁴⁴. These three roads are not identical, yet we would not tell the man he must cross three roads, but only one. We do not therefore, he says, always count by identity, so in fact our intuition that we do is mistaken⁴⁵.

Theodore Sider has objected to Lewis' view of counting by claiming that the example above should be understood as a case in which we would count by road segments. Although the question is phrased in terms of 'roads', when we use the term we do not always intend to talk about 'continuant roads'⁴⁶. If the man's intentions in asking how many roads he must cross do not concern continuant roads, but road segments, then this indicates why we do not count by identity in the example⁴⁷. It is not obvious that in cases of personal identity and fission we mean to talk about anything other than complete persons, rather than person-stages.

Moreover, Lewis' claim that there are two persons before fission seems to suggest that the number of persons at any given time is dependent on what will happen in the future⁴⁸. If I were to divide into twenty people next year, then we would be forced to claim that there are twenty (long-lived) persons existing now, all coincident with one person-stage. This is at

³⁹ Lewis 1983, p. 62

⁴⁰ Sider 1996, pp. 439-441

⁴¹ Lewis 1983, pp. 63-5

⁴² Sider 1996, pp. 440-441

⁴³ Lewis 1983, p. 63-4

⁴⁴ Lewis 1983, p. 64

⁴⁵ Lewis 1983, p. 64

⁴⁶ Sider 1996, p. 440

⁴⁷ Sider 1996, p. 440

⁴⁸ I must thank Tom Roberts for discussion on this point.

odds with our belief that the existence of a person in the present should not depend on the existence of anyone in the future.

Lewis' reason for invoking his system of counting by person-stages is to persuade us that Parfit's account of survival (see below) can be reconciled with our intuitions that identity matters as much as survival⁴⁹. However, in aiming to satisfy one intuition, Lewis expects us to disregard a second intuition: that we count by numerical identity. Furthermore, he must find some way of dealing with the problem of stating how many persons are present at a time before division into several persons has occurred.

1.8) Survival

In the teletransportation/branching scenario Parfit makes one other addition. The malfunctioning of the machine, that has led to Derek's body on Earth not being destroyed as usual, has done irreparable damage to his heart, that is, the heart of B ⁵⁰. B is given only a day to live before B will die of heart failure. Parfit asks us now how we should feel about the situation if we were in this position⁵¹. On the one hand, Derek has only a few hours of life left, so he will feel miserable and greatly pessimistic. On the other, his replica on Mars will continue to live a happy and healthy life for as many years as he could hope to live. All his plans will be carried out, his friends and family will not feel any loss, they will continue to live and communicate with his replica. To everyone around him there will be no difference between this outcome and an ordinary case of teletransportation.

The psychological account tells us that personal identity is a matter of psychological continuity and/or connectedness with the right kind of causal relation, the whole of which is labelled Relation R for brevity's sake. If Relation R holds then we have identity, on the condition that there is no branching, in other words, that Relation R holds uniquely. If there is no branching then Relation R holds between x at time t_1 and y only at time t_2 . There is nothing else at t_2 with a claim to personal identity with x .

So, PI = Relation R + Uniqueness. The claim then is that, in the equation, Relation R is much more important than uniqueness⁵². If there was no Relation R we could not have any kind of personal identity at all, whereas without uniqueness there is most of what makes personal identity hold. Uniqueness ensures there are no other challengers for the title of being

⁴⁹ Lewis 1983, p. 64

⁵⁰ Parfit 1987, p. 199-200

⁵¹ Parfit 1987, p. 201

⁵² Parfit 1987, p. 262-264

me. What this means is that Relation R on its own is about as good as personal identity. Consider the fission case again, although instead of anyone dying of heart failure in a short space of time, both *B* and *C* continue to live full, happy and long lives. In this case, neither *B* nor *C* can be said to be identical to *A*. However, Parfit claims, we cannot regard the positions of either *B* or *C* as anywhere close to death⁵³. They have both survived teletransportation, simply not as *A*, but as two different persons.

In fact, given that Relation R ensures survival, and uniqueness provides us with personal identity, we should be concerned with survival rather than personal identity. In the formula Relation R does all the important work, whilst uniqueness is an addendum, so survival is what matters.

1.9) Williams and Reduplication

There is also another reason for Parfit's rejection of personal identity in favour of survival. He subscribes to two conditions which Bernard Williams purportedly lays down for any criterion of personal identity⁵⁴. According to Parfit, Williams claims that any criterion must fulfil the following two requirements:

“Requirement (1): Whether a future person will be must depend only on the *intrinsic* features of the relation between us. It cannot depend on what happens to *other* people.

Requirement (2): Since personal identity has great significance, whether identity holds cannot depend on a trivial fact.”⁵⁵

Williams actually puts the case slightly differently himself. He argues that:

“No principle P will be a philosophically satisfactory criterion of identity for Ts if the only thing that saves P from admitting many-one relations among Ts is a quite arbitrary provision.”⁵⁶

He also argues that since identity is a logical relation that can only hold between one *x* and one other *x* at any particular time, then any account of personal identity must also be one-one, rather than one-many⁵⁷. The criterion of personal identity must itself be one-one⁵⁸; our criterion cannot be a one-many relation that is held in check by an arbitrary stipulation.

⁵³ Parfit 1987, p. 261-2

⁵⁴ Parfit 1987, p. 267

⁵⁵ Parfit 1987, p. 267

⁵⁶ Williams, Bernard 1973: ‘Bodily Continuity and Personal Identity’ in *Problems of the Self*, Cambridge: CUP, p. 21

⁵⁷ Williams 1973, p. 21

Parfit's own account rests on psychological continuity, but as a criterion of personal identity, psychological continuity admits of reduplication, which leads us to contravene Requirement 1⁵⁹. If I can be teletransported to Mars, then the same information that is used in that replication can be transmitted again to another planet, and can be used again to create a further replica⁶⁰. If I teletransport to Mars then, so Parfit claims, I continue to exist as the replica. But, if a second replica is made several weeks later somewhere else, then suddenly I cease to exist. In place of me there is a whole new person on Mars, and a whole new person on another planet, say Mercury⁶¹. Thus, psychological continuity does not meet Requirement 1 – whether I continue to exist would depend on whether another individual has been created or not.

Moreover, whether we have personal identity in a particular situation, according to Parfit, is in fact trivial⁶². What should concern us is psychological continuity itself, and not whether it holds uniquely. But this contradicts Requirement 2: whether personal identity holds cannot rest on something trivial.

Parfit argues that no other account can meet the two requirements. Williams' own suggestion that spatio-temporal bodily continuity could be a criterion for personal identity can be met with a similar objection, which Williams does himself consider⁶³. We might imagine a person who could divide in two, like an amoeba, and thus his physical continuity would also divide in two⁶⁴: so the physical criterion is also open to the problem of reduplication.

Earlier we examined reasons to be sceptical about the significance of bodily continuity in our account of personal identity, but accepted that the brain seems to be of special significance because parts of the brain seem not to undergo any change during an adult's lifetime, and also because of the role the brain plays in the continuity of our mental lives. A physical criterion of personal identity might thus rely simply on the continuity of the brain, but this account also fails to meet Williams' two requirements. Parfit claims that empirical evidence suggests that each half of the hemisphere can survive without the other half⁶⁵.

⁵⁸ Parfit 1987, p. 267

⁵⁹ Parfit 1987, pp. 267-8

⁶⁰ Parfit 1987, p. 267

⁶¹ Parfit 1987, p. 268

⁶² Parfit 1987, p. 268

⁶³ Williams 1973, p. 23

⁶⁴ Williams 1973, p. 23

⁶⁵ Parfit 1987, p. 254. The interpretation of the evidence that Parfit sides with is controversial, relying on the claim that each hemisphere can be an independent seat of consciousness in split-brain patients. This is a complicated issue and one I cannot go into here. However, we have independent reasons for rejecting the idea that brain continuity could provide us with a criterion of personal identity: brain

So, if we revisit Shoemaker's example of Brown and Robinson's problematic surgery we might imagine that the left hemisphere of Brown's brain is placed in Robinson's body (creating Brown₁), whilst the right hemisphere is left in place (creating Brown₂). It might take a while for Brown₁ to learn to perform certain actions and movements that normally require the existence of the right hemisphere, and similarly it may take Brown₂ some practice before he can perform actions that normally use parts of the left hemisphere⁶⁶. However, such a transplant is logically possible. This set up gives us an example of physical continuity fissioning in two, in just the way Williams seeks to avoid. If Parfit is correct, and in fact all accounts of personal identity are subject to this problem of reduplication, then they will all only avoid it by stipulating that the relation in question does not hold between one individual and many others, but this contravenes the second requirement⁶⁷.

Parfit's response is to present survival as fit for our concern, rather than personal identity. Since survival is not a one-one relation, then whether I survive in a particular situation will not depend on the existence of any other individuals⁶⁸. If I am replicated many times over, then I survive as each individual. So, survival (understood as psychological continuity and/or connectedness with the right kind of cause) meets Requirement 1. It also meets Requirement 2; survival occurs in all cases in which Relation R holds, whether or not it does so uniquely⁶⁹. Thus, whether there is survival does not depend on a trivial stipulation that I am the only individual who can claim to be psychologically continuous with an earlier person.

By insisting we must meet these requirements, Parfit gives another reason for favouring survival over personal identity. My aim in this dissertation will be to establish a psychological account of personal identity that is not open to reduplication. I will examine ways of adapting the psychological account, or at least, ways in which we should think about psychological continuity that might provide us with a stronger criterion which would resist attempts to show duplication is possible.

continuity is considered important because of its function in ensuring psychological continuity, and not because of any independent significance the brain has itself.

⁶⁶ Parfit 1987, p. 254

⁶⁷ Parfit 1987, p. 270

⁶⁸ Parfit 1987, p. 271

⁶⁹ Parfit 1987, p. 271

Chapter 2

Thus, psychological continuity is a relation holding between person-stages. For there to be continuity between two person-stages there must be a chain of psychologically connected person-stages connecting the two. For there to be a connection between two person-stages there must be similarity between at least half of their beliefs, desires, intentions and memories with a causal connection. For psychological continuity to generate personal identity it must hold uniquely. In cases where there is branching, i.e. where there is more than one person-stage that is continuous with an earlier stage, we cannot have identity (identity being a one-one relation). However, we do have what matters in survival. To survive there must be psychological continuity between two person-stages, even if there are other person-stages also continuous with the earlier stage.

2.1) The Causal Requirement

As far as the causal relation linking one person-stage to another goes, there are four possibilities for the proponent of psychological continuity. Psychological continuity could rely on:

- o the normal cause
- o a dependable/reliable cause
- o any cause

- o no cause at all

The first option, the normal cause, is usually coincident with bodily continuity in the case of humans. This bodily continuity might simply be brain continuity if we believe that the brain is the only part of the body that supports the mind, or it could be a broader kind of bodily continuity. However, it seems safe to assume that the normal cause of psychological continuity requires some maintenance of the body. For anyone adamant that teletransportation is possible, the normal cause is too strong a relation to connect one person-stage to another. It does not allow for all the scenarios we want to say sustain personal identity. As mentioned earlier, all known cases of personal identity probably coincide with bodily continuity, but this does not mean that the normal cause is necessary for personal identity. It merely shows that the normal cause is sufficient for personal identity.

A dependable or reliable cause would allow more possibilities than the ordinary causal chain based on bodily continuity, but would still always result in the psychological states of *A* being the psychological states of *B*. A reliable cause might be the actions of a teletransportation machine. The machine is known never to malfunction, and so every time anyone enters on Earth, his or her replica is produced on Mars by a reliable cause. The psychological connection between *A* and *B* has a reliable cause. The link therefore between the two is strong connectedness and therefore continuity with a reliable cause. Because teletransportation has occurred there is no continuity of bodily matter (although it may be said that Replica's body has some kind of formal continuity with *A*). Earthman and Replica are made up of quantitatively different matter, so there is certainly not a normal cause for the psychological continuity in place. However, since we know we can depend on the outcome of the teletransporter, then we can be assured that psychological continuity will hold.

The third option is yet wider than the reliable cause: the kind of cause appropriate to ensure psychological continuity could be any cause at all. There need be nothing reliable about the method that has brought about my existence, as long as I am connected to my previous person-stage, so there is continuity between all my person-stages. We can imagine a situation where the teletransporter occasionally works and occasionally malfunctions resulting in a mixture of various psychological states being grouped to make a new person. If *A* on Earth walks into the teletransporter and Replica *B* steps out of the receiver on Mars and there is psychological continuity between the two, then we have no reason to suppose that in this instance personal identity does not hold. We have the same situation as with the second option, except that in this case the teletransporter is only successful on some occasions. When it is successful we still have personal identity, even if this success is a much rarer occurrence.

The rarity does not change how well psychologically connected *A* is with *B*. I propagate tomato plants, but they do not produce fruit each year. Some years I forget to pick off the flowers, thus failing to ensure that a crop is produced. Nevertheless I do remember on occasion, and if I do, the plants produce a crop of cherry tomatoes. Just because a plant does not produce tomatoes, or more pertinently, just because I do not always remember to tend to my tomato plants, does not mean that there are never occasions when I can enjoy eating cherry tomatoes produced by the plants. The rarity of their existence does not mean that the tomatoes are not real.

Our last option is that no cause is necessary. In this situation, there need be no causal chain linking *A* to *B*. Scott Campbell⁷⁰ suggests that we imagine that when I step into the teleporter my body is scanned and destroyed as usual. However, instead of the information being transmitted and re-created on Mars, the receiver on Mars has generated a random set of psychological states and acted on this information instead. By chance, this random set matches exactly the information based on myself on Earth that should have been transmitted to Mars. So, someone who is exactly psychologically similar to me is created on Mars. Campbell claims that the resulting person, whom he calls Random, is psychologically sequential with me⁷¹. Something is sequential when it is as similar as it would be if it was continuous, but there is no causal connection between the two.

2.2) Parfit's Reasoning

When Parfit chooses between the four he opts for the third alternative. It should be clear already that, as a proponent of the psychological continuity account, Parfit does not put much store in bodily continuity. At best, it is an accompaniment in usual cases of psychological continuity, but it has no fundamental importance in an account of personal identity. He says of physical continuity:

“What we value, in ourselves and others, is not the continued existence of the same particular brains and bodies. What we value are the various relations between ourselves and others, whom and what we love, our ambitions, achievements, commitments, emotions, memories, and several other psychological features.”⁷²

⁷⁰ Campbell, Scott 2005: ‘Is causation necessary for what matters in survival?’ in *Philosophical Studies*: 126: p. 381

⁷¹ Campbell 2005, p. 382

⁷² Parfit 1987, p. 284

For Parfit, although the normal cause is sufficient for personal identity, it is not necessary. If we include normal causes as necessary in our criterion of personal identity then we limit the possible kinds of cases of personal identity there can be.

Moreover, even a reliable cause is too strong a necessity for the criterion of personal identity, Parfit claims. What matters is psychological continuity and connectedness, not how often the continuity comes about. So, even if the reason for *A* and *B* being the same person is an unreliable cause, this does not prevent them from being one and the same person. What matters to us is the effect, and not the nature of the cause of the effect⁷³.

Parfit does not go as far as claiming that there need not be a cause at all, possibly because this would reduce his theory to psychological similarity, leaving open the possibility that personal identity could hold between any two person-stages that are psychologically similar. If this were the case then it might be acceptable to claim that, if I were to die in a car accident tomorrow, I would continue to exist in the form of my psychologically similar sister or a friend even⁷⁴. If my sister is psychologically very similar to me (we share, perhaps, many similar beliefs, and memories, and share many intentions) then my being killed would not mean that I did not survive. Whilst Parfit wants to examine all possible cases of personal identity and survival, he seems to maintain the requirement of a causal connection to avoid opening up the criterion too much and allowing all kinds of cases of psychological similarity to count as survival.

Thus in the equation $\langle \text{PI} = \text{Relation R} + \text{Uniqueness} \rangle$, Relation R stands for any (psychologically-based) causal connectedness between person-stages.

2.3) The Objection

Against Parfit's analysis, Scott Campbell and Robert Elliot have claimed that a psychological account of personal identity should be taken yet wider⁷⁵. In other words, if in any situation we have strong psychological similarity then just this is sufficient for survival. If *A* and *B* are similar enough, then there need be no causal connection linking them together. It

⁷³ Campbell 2005, p. 380

⁷⁴ See Korsgaard, Christine 1989: 'Personal Identity and the Unity of Agency: A Kantian Response to Parfit' in *Philosophy and Public Affairs* 18:2: 107 for an attempt to use this issue as an objection against Parfit's account.

⁷⁵ Campbell 2005, pp. 375-396 and Elliot, Robert 1991: 'Personal Identity and the Causal Continuity Requirement' in *The Philosophical Quarterly*: 41:162:55-75

need not be the case that the psychological states of *B* are in any way causally dependent on the psychological states of *A*.

Now, neither of them makes the claim that similarity alone is sufficient for personal identity, for personal identity is a one-one relation, and psychological similarity, even more than psychological continuity, is likely to be a one-many relation. However, Parfit claims that personal identity is not as significant as we tend to suppose. What should be of concern to us is survival, because in any case of survival what matters to us continues to exist. So, if survival has a wider criterion then we need to rethink our formulation of personal identity: causal connections might be necessary for personal identity in the same way that the relation must hold uniquely, but survival should be understood in broader terms. In this chapter I will outline the objection made against a causal requirement, and for psychological similarity. It will become clear that, in particular, Campbell's understanding of survival runs into problems about the nature of mental content, the focus of the third chapter. Ultimately I will claim that we should prefer Parfit's psychological continuity account of personal identity and survival to Campbell's sequentialism, because the latter cannot cope with the possibility of external content.

2.4) Sequentialism

Campbell labels the kind of psychological account that he thinks we should endorse Psychological Sequentialism. Two person-stages are sequential if:

- (i) one is psychologically continuous and/or connected with the other; or
- (ii) the two are quasi-connected; or
- (iii) there is a chain of quasi-connectedness between the two.⁷⁶

The significant addition is the notion of quasi-connectedness. Two person-stages are quasi-connected if person-stage *B*'s psychological states are "just as they would be if *B* is psychologically connected to *A*."⁷⁷ So, two person-stages are sequential if they are as similar as they would be if they were causally connected.

Campbell reiterates Parfit's argument in favour of any causal link over a reliable cause, in defence of his own preference: sequentialism. When it is the effect that matters, we

⁷⁶ Campbell 2005, p. 381

⁷⁷ Campbell 2005, p. 381

should not be concerned with the method of achieving it⁷⁸. When all that matters is the content of my beliefs, desires, intentions and memories, no causal link should be necessary at all.

Elliot says something similar, claiming that there should be no such thing as what he labels the Causal Continuity Requirement (CCR)⁷⁹. Instead, though, of arguing that psychological accounts of personal identity should take the wider stance of sequentialism as Campbell does, Elliot claims that in rejecting the CCR we leave the reductionist position untenable, forcing us to look elsewhere for a criterion of personal identity⁸⁰.

Despite their differing conclusions, Elliot and Campbell present a similar attack on the standard account of personal identity. They imagine two similar scenarios, one in which, on the standard account, personal identity holds, and one where it does not. In the first situation the teletransporter (evil scientist or omnipotent demon), brings about the existence of *B* based on the previous existence of *A*. The existence of the psychological states of *B* depends causally on the previous existence of those states in the form of *A*. So with teletransportation, we have the same story as Parfit originally offers us; *A* steps into the teletransporter on Earth and *B* walks out on Mars. In the second case something slightly different happens. As in the no-causal-link example in Section 2.1, there is a glitch in the system, and instead of *B* being produced as a result of the information gathered from *A*, a random set of properties is generated and then instantiated in *C*. But, by chance, *C* is *just the way B* would have been had he been created instead. *C* is sequential with *A*⁸¹.

The only difference between the two cases is the causal connection, or lack thereof, between the psychology of *A*, and the psychologies of *B* and *C*. Campbell and Elliot both argue that the difference between the two is not as significant as might be supposed. We often, Campbell admits, find that small differences do make a large difference to the outcome of a situation⁸². So, when a malfunction in a computer system causes the electricity to go down in a hospital and brings about the loss of hundreds of lives, then the difference between the tiny malfunction occurring and not occurring is significant. However, in the scenario presented by Elliot and by Campbell it is not the outcome that differs. In both cases we have

⁷⁸ Campbell 2005, p. 380

⁷⁹ Elliot 1991, p. 56-57

⁸⁰ Elliot 1991, p. 57 Elliott is firm in his rejection of a Causal Continuity Requirement, but less so in his conclusion – he entertains the possibility of psychological continuity without any causality, i.e. Campbell's sequentialist view, but also that the personal identity relation is unanalysable, or that personal identity is in fact illusory, amongst other options (p. 75).

⁸¹ Campbell 2005, p. 382

⁸² Campbell 2005, p. 382-3

exactly the same set of psychological states that emerges from the teletransporter. *B* and *C* differ only in how they got there and, claim Campbell and Elliot, this is of no import.

In support they invoke Williams: personal identity, is of such significance that whether personal identity holds cannot depend on something trivial⁸³. Parfit uses this stipulation to argue against the significance we place on personal identity and in favour of survival. He claims that survival meets this requirement – survival is so important, that whether I survive or not cannot depend on something arbitrary or trivial⁸⁴. Parfit says that Relation *R with the right kind of cause* meets this stipulation. But Elliot and Campbell claim, the difference between there being a causal connection between two person-stages and there being none is itself trivial. If, Elliot says, psychological continuity is sufficient for survival, then psychological similarity is also⁸⁵. All that is required is psychological continuity and/or connectedness, even Relation *R* with its requirement of a causal connection is too strong for a correct criterion of survival⁸⁶.

2.5) Campbell's examples

Campbell gives several related examples to support his assertion that the random set of states generated by the teletransporter provides us with personal identity as long as the content of the states of *B* are sequential with those of *A*.

An evil scientist alters your brain to the specifications of a randomly generated set of psychological states that just happen to be identical to those just before the alteration⁸⁷. This is the example of the indiscernible swap: you are not even aware that a change has occurred, and yet there is no causal connection between your psychological states at the present time and your previous psychological states. Why should we claim that you do not survive in this case, even though we would if there was a causal link between pre- and post-brain alteration? Campbell claims that our intuitions tell us that this is at least survival, if not personal identity, but according to psychological continuity there are in fact two different persons involved.

Campbell also gives the example of the 'new club', an analogy which Parfit introduces, but which Campbell thinks favours his conclusion of sequentialism rather than

⁸³ Campbell 2005, p. 382, Elliot, 1991, pp. 59-62

⁸⁴ Parfit 1987, p. 271

⁸⁵ Elliot 1991, p. 62

⁸⁶ I will call Parfit's criterion of survival and personal identity psychological continuity, and Campbell and Elliot's criterion of survival psychological similarity in order to differentiate easily between the two.

⁸⁷ Campbell 2005, p. 386

continuity. In the example Dan finds the regulations and description of a club that has ceased to exist⁸⁸. Upon reading the information Dan decides to set up a new club (Y) following the regulations about the old one (X) that he has read. The existence of the new club is causally dependent on the existence of the old club, and the way the new club is run is dependent on the old one also. We might say that the old club has survived in the guise of the new one: in setting up the new club, Dan has revived the old one.

In Campbell's addition to the analogy we are to imagine a similar situation, except Dan has found a file on his computer with a random set of regulations, generated by a malfunction of the computer. It just so happens that the random set of regulations exactly matches the list of rules for X that actually existed, so when Dan sets up his new club (Z) he sets up a club that is exactly like the club he would have set up had he read the genuine regulations. Club Z is sequential to Club X even if there is no causal dependence between the existence of Z and the existence of X.

The first part of the analogy is used by Parfit to argue that persons should be treated in the same ways as we view Dan's revival of the club. If Dan can read some rules and from this information recreate a defunct club, and we accept that what seems to matter to us in our own survival is the continuity of our psychological states, then we should accept that teletransportation is possible. There is nothing intrinsic about me that means I cannot survive a trip to Mars by this means.

Parfit plays on the analogy between a club and a person: a club may be made of different individuals, but as long as the structure and rules are the same, then the club is the same. Similarly a person may be made of different matter at different times, but nevertheless, he or she remains the same person. However, I am not sure the two are similar enough for a full analogy. Whilst there may be no answer as to whether club Y is numerically the same as X, it is certainly qualitatively the same, apart from the difference in who its individual members are. But in the case of personal identity we are looking for numerical identity. If Replica is not numerically identical to whom he is a replica of, then the two are not the same person. In fact, it would seem that Parfit, in making the analogy, is hinting at his claim that survival is what matters, and not identity. For, as clubs Y and X need not be numerically identical, but can still be referred to (non-philosophically) as the 'same', if I am replicated twice, I can survive as both Replicas whilst being numerically identical to neither.

Campbell adapts the analogy to suggest that continuity (the holding of a chain of strong psychological connections with the right kind of cause) is too strong a criterion for

⁸⁸ Campbell 2005, p. 385

survival. If *A* can survive as *B*, then *A* can also survive as *C*, in the same way that *Z* is as much the revival of Club *X* as *Y* is.

Several other examples of survival are proffered by Campbell in an attempt to convince us that being sequential with a person-stage is surviving as much as being continuous with it might be. One example is that of a set of old tapes on which I have managed to record all the pertinent information about my psychological states⁸⁹. This taped version of myself, Campbell claims, allows me to survive even if I am killed in a car crash some days later. He argues that psychological continuity will not allow this because there is no causal connection between me just before the crash and the taped replica of me⁹⁰. However, it is difficult to see the difference between an old tape and the teletransportation case. Campbell claims that because there is a time lag between the creation of the tape and my death, the taped replica is not R-related to me-just-before-I-die. However in Parfit's description of teletransportation we have a similar example. My replica on Mars exists before I die, yet even though I know I will die in a couple of hours or days, allowing for a large number of psychological differences between myself on Earth as I die and the replica on Mars. This does not mean I cannot survive as the replica. What makes this a case of survival is the right causal connection and enough psychological continuity. This does not mean that my psychological states must be caused by the person-stage that directly preceded the current stage.

Campbell fails to show that sequentialism deals with the old tapes case better than the psychological continuity account, because of a misunderstanding about how the latter can be applied in this situation.

In yet another example we meet a version of Swampman⁹¹; at a certain time a person, Sammy, is instantly destroyed and just after, by sheer coincidence, on another planet a bolt of lightning hits a swamp and Swampy is created, who happens to be exactly like Sammy⁹². According to Campbell, Swampy has what matters in survival, even though he is only sequential with the original person, and there really is no causal connection. This is the most obvious example Campbell offers of a scenario where there is no causal connection between the original and Random. There is supposed to be no qualitative difference between Swampy and the replica that steps out of the teletransporter on Mars, the only difference between them is the causal dependence that holds between the replica and the original on which his

⁸⁹ Campbell 2005, pp. 387-8

⁹⁰ Campbell 2005, p. 388

⁹¹ See Chapter three for the original description of Swampman by Davidson.

⁹² Campbell 2005, p. 389-90

psychological states are based. As such, though, it is not obvious that Swampy provides us with another example of psychological sequentialism in action. In lacking any causal relation to anything, it is not clear that Swampy has any thoughts, beliefs, memories or intentions, let alone the same mental states as Sammy had. I will come back to this example in the following chapter – for now I will summarise our possible responses to the charge that psychological continuity is not radical enough.

2.6) Possible responses

There are two different options we can take at this point:

- (1) We are persuaded by Campbell and reject continuity in favour of sequentialism. As die-hard believers in a psychological account we are forced to admit that if what matters in survival is the kind of psychological states we have over time, then the way these states came about is insignificant. As such we must ignore the problem of ‘surviving’ as a multitude of different people when we die because of all the psychologically similar states there are between me when I die and the people around me.
- (2) We do not accept the force of Campbell’s argument, and claim instead that Parfit was correct to differentiate between psychological continuity and similarity. In particular, Campbell’s example of Sammy and Swampy draws to attention a difference between psychological continuity and similarity that leaves the latter open to criticism by proponents of externalism about mental content. This issue forms the next chapter of my dissertation, as I will attempt to show that, as long as we are prepared to side with the externalist over mental content, then we cannot make sense of the claim that Sammy survives as Swampy. For both personal identity and survival, the causal relation between two person-stages is integral to them sharing the same mental states, and so cannot be rejected in the way Campbell and Elliot wish.

Chapter 3

Donald Davidson introduces Swampman in his paper 'Knowing One's Own Mind' in order to examine arguments put forward by Putnam and Burge for externalism about, respectively, linguistic and mental content. Campbell's discussion about Swampman brings to the fore an interesting way in which it might appear that the issues surrounding teletransportation, specifically the problem of reduplication, can be dealt with.

The internalism/externalism debate centres around the way in which content is individuated. The internalist claim is that mental content is fixed by features of the individual (that content is narrow), whilst the externalist claims that it depends directly on the environment as well as the individual's internal states (at least some content is wide). So, for the (non-dualist) internalist, two individuals who have exactly the same intrinsic physical states should have exactly the same content to their mental state. The debate is not concerned with whether the environment can influence content instrumentally⁹³. Being in a certain environment will cause me to have beliefs about being in that environment. When I read Putnam's 'The Meaning of 'Meaning'' I will have the belief that I am reading a paper by Putnam. The paper will cause my belief, but this is not what is in question. In this kind of way both internalists and externalists agree that the environment can influence the content of my mental states; what is at issue is whether the environment determines content directly⁹⁴.

⁹³ Hurley, Susan 1998: *Consciousness in Action*, Cambridge, Massachusetts: Harvard University Press, p. 246

⁹⁴ Hurley 1998, p. 246

It may be possible to claim that reduplication of persons is not possible, because the duplicate will not have the same mental contents as the original who stepped into the teletransporter. I will examine whether this can be established if mental contents are individuated externally. Unlike Campbell, we want to claim that Sammy does not survive as Swampy. I will also examine arguments for externalism to see if they will aid me in my defence of personal identity against the need for a separate category of survival in cases where psychological continuity does not hold uniquely. In this chapter, therefore, I will consider the possibility that Replica on Mars does not have psychological continuity with the original on Earth, and also whether Campbell's Random has any mental states at all.

3.1) Twin Earth

The argument for externalism has roots in a thought experiment about Earth and Twin Earth. According to the experiment I am to imagine that I have a doppelganger, Twin Alisa, who lives on Twin Earth⁹⁵. This planet appears to be almost exactly alike to Earth, and Twin Alisa appears to be exactly alike to me, in other words Twin Alisa has the same internal states that I have. Now, on Twin Earth the substance that flows in the rivers, fills the lakes and reservoirs and pours out of the faucet appears to be just like water. It looks, feels and tastes like water, and forms an ice-like substance when cold, and a steam-like substance when hot. When rain falls on Twin Earth it would appear to be water with which one is being soaked. With all these similarities in observable properties⁹⁶, if I were to visit Twin Earth I would initially think it was water. However, on Twin Earth this substance is not H₂O, but a liquid with a completely different molecular structure, which we can simplify here to XYZ⁹⁷. According to the argument for externalism, when I go to Twin Earth and refer to the substance I see in the lake, XYZ, by calling it 'water' I will be mistaken⁹⁸.

However, if Twin Alisa were to call it 'water' she would not be. This is because, Putnam argues, ““meanings” just ain't in the head”⁹⁹. What I am referring to when I say 'water' is the liquid I have come across in the past that has shaped my understanding of what

⁹⁵ Putnam, Hilary 1975: 'The Meaning of 'Meaning'' in *Mind, Language and Reality: Philosophical Papers Vol. II*, Cambridge: CUP, pp. 223-4

⁹⁶ Brown, Curtis 2002: 'Narrow Mental Content' *Stanford Encyclopedia of Philosophy*: <http://plato.stanford.edu/entries/content-narrow/>, revised 2007, accessed 03.08.2007

⁹⁷ Since around 70% of the human body is composed of water, presumably Twin Alisa's body is around 70% XYZ – a difference we must ignore for the thought experiment to go through.

⁹⁸ Putnam 1975, p. 223-4

⁹⁹ Putnam 1975, p. 227

water is, that is, H₂O. Whereas, when Twin Alisa uses the word ‘water’ she refers to XYZ, the liquid that has been the historical basis for her learning of the word ‘water’. So, when Twin Alisa says ‘water’ she does not mean *water*, but twin water.

It is not relevant that I know whether water and twin water are the same liquid, merely that the historical basis for my reference would be one of these liquids, and not the other. Putnam imagines that travellers visit Twin Earth in 1750, before the molecular structures of water and twin water have been discovered¹⁰⁰. Despite their lack of knowledge about the molecular difference between the two liquids, Alisa and Twin Alisa’s utterances about water would still have different contents. This is because Alisa’s experiences in the past have been of H₂O, whether she knows it or not, whilst Twin Alisa’s experiences have been of XYZ. Our knowledge about the natural kind in question is irrelevant, what matters is that my concept of water has been derived from encounters with H₂O. If in 1750 I come across some XYZ on Twin Earth and say ‘here is some water’ I will be just as mistaken as I would be today in making such a comment.

The point of this thought experiment is to show that linguistic content is individuated, at least partially, externally to the individual. Because Alisa and Twin Alisa have exactly the same internal states, the difference in their meaning when they each use the word ‘water’ must depend on the differences in the liquids themselves. Specifically Putnam’s argument seeks to show that some of our beliefs about natural kind concepts depend on the identity of certain physical substances in our environment.

In another example Putnam maintains that he cannot tell the difference between a beech tree and an elm tree¹⁰¹. Whilst his concept of beech trees and his concept of elm trees are identical, this does not mean that he means *beech* when he says ‘elm’ or *elm* when he says ‘beech’. The meaning of either word depends on the physical trees, external to Putnam¹⁰². In any instance in which Putnam uses the word ‘beech’ his internal states are identical to the way they would be in an instance of his using the word ‘elm’. Nevertheless he does not mean the same thing when he says ‘beech’ as when he says ‘elm’.

Putnam’s catchphrase for externalism – that ‘meanings just ain’t in the head’ – plays on the traditional opposition to his view. The internalist believes that content supervenes on intrinsic properties of the individual only. Meanings, they argue, depend only on the internal states of the person making the utterance.

¹⁰⁰ Putnam 1975, p. 224-5

¹⁰¹ Putnam 1975, p. 226-7

¹⁰² Putnam 1975, p. 226

3.2) Burge and Arthritis

An extension of Putnam's argument is found in Tyler Burge's 'Individualism and the Mental'. As well as elements of the environment playing an individuating role in our natural kind concepts, Burge argues that the contents of our beliefs and thoughts can supervene on our social institutions¹⁰³. Burge's argument extends Putnam's both to include other features of the environment, and to apply the argument to mental states as well as linguistic utterances.

In one of Burge's thought experiments, an individual, say Harry, who speaks English, knows he has arthritis in various joints¹⁰⁴. By this I mean he correctly uses the word to talk about the pain he suffers in his joints, and truly believes he suffers from arthritis in his joints. But Harry also believes he suffers from arthritis in his leg, not realising that arthritis is a condition that affects the joints only, and that the pains in his thigh therefore have some other cause. When he says what he believes, that he has arthritis of the thigh, he has a false belief.

By contrast, we can imagine a counterfactual situation in which Harry lives in a community in which 'arthritis' refers to any rheumatoid disease, and not just those conditions of the joints, so they use the word to refer to, let's say *twin arthritis*. No one in Harry's (counterfactual) linguistic community possesses the concept *arthritis*, for by the word 'arthritis' they refer to any rheumatoid disease, to *twin arthritis*. So, in this community, when Harry says 'I have arthritis in my thigh' he expresses his true belief.

Burge argues that because the internal psychological states, and also physical states of the body, of each individual are the same in the two situations, then the difference in belief must be explained by the linguistic usage of each community, in other words, by an external factor¹⁰⁵. Burge summarises the difference between Harry and his counterfactual opposite number thus:

"The differences seem to stem from differences "outside" the patient considered as an isolated physical organism, causal mechanism, or seat of consciousness. The difference in his mental contents is attributable to differences in his social environment."¹⁰⁶

Again, the thought experiment is taken to show that we should individuate concepts, at least partially, externally. And the thought experiment can be run with any term, Burge

¹⁰³ Burge, Tyler 1979: 'Individualism and the Mental' in French, Uehling & Wettstein (Eds.) *Midwest Studies in Philosophy IV*, Minneapolis: University of Minnesota Press, p. 79

¹⁰⁴ Burge 1979, pp. 77-9

¹⁰⁵ Burge 1979, p. 79

¹⁰⁶ Burge 1979, p. 79

says, that an individual can partially misconstrue. He offers other examples, involving colours, legal terms, and words used to describe different cuts of meat¹⁰⁷.

So, rather than merely natural kind concepts being construed widely, any mental content may depend at least in part on social linguistic usage. I might use the word 'barrister' incorrectly to refer to all lawyers. When I see a solicitor on a news programme I have the belief 'there is a barrister'. In doing so I am mistaken because the linguistic community in which I live does not use the word 'barrister' to refer to any lawyer in general. However we can imagine a society in which the word 'barrister' has the extension *all lawyers*. If I make the same appraisal whilst watching the news in this community, I will have a true belief. The difference between the mental contents in each instance is not based on any internal difference between me-in-the-first-community and me-in-the-second – the difference between the two situations is the difference in community itself.

3.3) Swampman

It is at this point that Davidson's thought experiment about Swampman should be reintroduced, as an illustration of the way that meaning cannot be duplicated without a suitable learning process. So, according to the experiment, Davidson happens to be walking near a swamp during an electrical storm when a bolt of lightening hits and kills him¹⁰⁸. At the same time the bolt also hits a dead tree stump in the swamp and, by magnificent coincidence, creates an exact replica of Davidson. Swampman sets about leaving the swamp, going to Davidson's home to see Davidson's wife and then to socialise with Davidson's friends.

It appears to everyone else who meets Swampman that they have encountered Davidson – he appears to recognise his wife and friends and remember the philosophical problems he has been working on lately. He appears to function just as Davidson did. However, there is one crucial difference. According to Davidson, Swampman doesn't have any thoughts at all – he doesn't recognise anybody, or remember anything, because he never cognised anything in the first place¹⁰⁹. In order to recognise Davidson's wife, Swampman must have met her before. And in order to be able to make any utterances, he must have learnt the meanings of words, in the way we all do as children. When Swampman appears to say

¹⁰⁷ Burge 1979, pp. 79-82

¹⁰⁸ Davidson, Donald 2001: 'Knowing One's Own Mind' in *Subjective, Intersubjective, Objective*, Oxford: Clarendon Press, pp. 19, originally published 1987 in *Proceedings and Addresses of the American Philosophical Association*: 441-58

¹⁰⁹ Davidson 2001, p. 19

something that Davidson would be likely to say, he is not actually saying anything at all, because the sounds have no meanings. On the externalist view the right kind of causal dependencies between objects and terms referring to those objects are not in place in the case of Swampman. His mental states do not have the right kind of causal history to be content-bearing at all.

3.4) Campbell and Externalism

This is where Campbell takes up the debate. He argues that Swampman could be considered the same person as Davidson, in the same, or at least a similar way to the way that Parfit and his replica on Mars are the same person. So too, he claims that if there is a double of me, Twin Alisa, on Twin Earth, and I (on Earth) were to suddenly die, then I would survive as Twin Alisa. Sequentialism seems to entail that, since Twin Alisa is psychologically similar to me, then I can survive as Twin Alisa.

Here is what Campbell has to say about externalism itself, and the threat it creates for his account of personal identity:

“Random, being newly created, is not yet causally connected to anything. Replica on the other hand, is causally connected to things, through being the causal product of earlier states of myself. Thus, Replica can refer to things, while Random cannot (and the same applies to Swampy). Random’s mental states will therefore have internal content, but they will not have external content. If externalism is true, then it will follow that Replica has genuine memories of my life, or at least “quasi-memories”, but Random will have no memories or quasi-memories at all. Nor will Random have any intentions or quasi-intentions, or any beliefs, and so on, because these states only exist if there is “external content”.”¹¹⁰

A radical externalist will believe there is no such thing as internal content, so Campbell’s claim that Random’s mental state will have internal content, without a defence of internal content itself is questionable. He does concede that some may object that the difference between Replica and Random is that the former can refer to things, whilst the latter cannot¹¹¹. Random will only have ‘internal content’ if there is any such thing, but will lack ‘external’ content (presuming there is external content) because he has no causal relation to Davidson, in the way that Replica and Parfit are causally related¹¹². The argument may not be merely that Swampman cannot refer. If we take up an extreme externalist stance about mental

¹¹⁰ Campbell 2005, p. 390

¹¹¹ Campbell 2005: p. 390

¹¹² Campbell 2005, p. 390

content, then Swampman will not have any beliefs, memories, intentions and desires, and neither will he have any quasi-propositional states. In this case everything that is considered important in personal identity or survival would be missing from Swampman's psychology.

Campbell's response to this kind of objection is to claim that what Swampman will have is "near-beliefs" and "near-intentions", etc., that is the internal content only of Davidson's beliefs, intentions, memories and desires¹¹³. And, he asserts, near-beliefs are almost exactly the same as beliefs, so Swampman's beliefs will be almost the same as Davidson's¹¹⁴. His claim is that Swampman's beliefs will be "almost as good as"¹¹⁵ a teletransported Replica's beliefs would be.

Campbell's assertion of the similarity between 'near-beliefs' and beliefs is unsubstantiated and seems to underestimate severely the significance the externalist places on the relation between individual and environment. And Campbell also gives no explanation of the way in which Swampman's 'near-beliefs' will be almost as good as a normal belief. We must establish first to what extent mental content is individuated externally (if at all), before we can make such a claim. Indeed, to state that, after we have somehow suspended the elements of mental content that depend on features of the environment, the remainder is a 'near-belief' is to make several assumptions. We would be assuming that the remainder is something like a belief, that some content is narrow, *and* that this narrow content is what is of importance to personal identity. To assert that internal content gives us a 'near-belief' and then claim that a 'near-belief' is 'almost as good as' a belief is to make a claim about terminology and then make an assertion based on your assumed terminology.

If Campbell can provide an argument to show that internalism about mental content is correct, then he could claim that Random and Replica are about equal, and also that there need be no causal connection between one person-stage and another in order for there to be survival. There are many arguments purporting to show the importance of narrow content¹¹⁶, and rejecting externalist claims¹¹⁷, but Campbell offers none of these. The issues surrounding

¹¹³ Campbell 2005, p. 391

¹¹⁴ Campbell 2005, p. 391

¹¹⁵ Campbell 2005, p. 391

¹¹⁶ For example Fodor, Jerry A. 1987: *Psychosemantics: The problem of meaning in the philosophy of mind*, Cambridge, Massachusetts: MIT Press; Loar, Brian 1988: 'Social Content and Psychological Content' in R. Grimm and D. Merrill, eds., *Contents of Thought*, Tucson: University of Arizona Press, pp. 99-110

¹¹⁷ For example Crane, Tim 1991: 'All the Difference in the World', *The Philosophical Quarterly* 41: 1-25; Bach, Kent 1987: *Thought and Reference*, Oxford: OUP

the individuation of mental content are various and detailed, and it is not possible to examine them here.

If we could establish that externalism is at least partially correct, i.e. that mental content is partly individuated externally, then Random will lack the externally individuated mental contents of Davidson. Campbell gives no reason for his assertion that the internal content of a belief gives one a 'near-belief', and in failing to do so, leaves his argument for sequentialism hanging.

If we were to accept the externalist argument, we can deny that psychological sequentialism, in which there is no causal relation between two person-stages, gives us either personal identity or survival. Even just to survive as a number of individuals, I must be causally related to each of them. But without examining the details of the arguments for and against externalism, we cannot provide a decisive argument against Campbell's sequentialism.

3.5) Swampman and Replica

Campbell's introduction of Swampman to his argument for sequentialism draws attention to the differences between Davidson's coincidental swamp replica and Parfit's teletransported replica on Mars. The teletransporter does not create a replica merely by coincidence, but based on the psychological states that I exhibit on Earth when I step into the teletransporter. Parfit stresses the significance of the causal relation between Replica and me. For both personal identity and survival, the replica must have psychological states *with the right kind of cause*, although Parfit does not state what kind of cause is required.

By claiming that psychological similarity is good enough for survival, Campbell wants to assert that I could survive as Random (or Swampman). I have examined the view that in order for Davidson to survive as Swampman the latter, in fact, must be causally related to the former. The claim being entertained is that unless Swampman's mental states are causally related to Davidson's then they will be missing at least some content. This is because the causal relation between Davidson's mental states and objects in the world will fail to be transmitted to Swampman's mental states, due to the fact that Davidson and Swampman are not themselves causally related. But if this is the case then in order to be psychologically similar, even, person-stages must be causally related. If this is the case, then claiming that it is

psychological similarity and not causation that matters in survival seems a little disingenuous, for it is only by having the right causal relation that we can be similar.

As just stated, Parfit makes no commitment as to the kind of causal relation he has in mind, nor does he give his reasons for including the causal requirement. One way of understanding the requirement is that it highlights the difference between Replica and Random. What this would mean is that the mental states that Replica has *are* related to the environment in the right kind of way. Replica continues to have a host of beliefs about where I live, who my friends are, what state my dissertation is in, *because* I had those beliefs. And their content partly supervenes on me, in the past, having met my friends, found somewhere to live, and striven to write my dissertation. If this is what Parfit has in mind, then in lacking a causal connection, Swampman and Campbell's Random both lack external content to their beliefs, which, *if we accept the externalist's argument*, gives us an important reason to reject sequentialism.

3.6) Reduplication

The arguments for externalism are far from uncontroversial, but in fact Parfit can choose to be internalist or to be externalist about content. If he wants to claim that content supervenes on internal properties only, then Replica can be said to continue to have the same thoughts and propositional attitudes as the individual who stepped into the transporter. On the other hand, if Parfit favours externalism, then Replica still has the same propositional attitudes and thoughts as the individual-prior-to-teletransportation because their existence is historically based on my experiences of the world.

As far as it is an attempt to silence the clamorous problem of reduplication, Parfit can remain silent on this particular debate about how content is individuated, since for teletransportation to work, he can retain either externalist or internalist sympathies. This traditional externalist debate will not benefit us in opposing teletransportation as a cue for reduplication.

Chapter 4

4.1) The Embedded Mind

We have seen that traditional externalism does not give us any ammunition against teletransportation and hence against reduplication. However, there are other forms of externalism which have altered our understanding of the mind; the hypothesis for the extended mind suggests that the mind cannot always be located in the skull, but can be partially constituted by elements of the environment. Such a view of the mind puts pressure on the traditional thought experiments used in debates about personal identity which assume that personal identity can hold across widely different environments. Although we will find the appeal to embedded cognition unsuccessful in meeting the challenge of reduplication due to its failure to establish that for every individual that exists, his or her mind extends into the environment in a way that cannot be duplicated, it will be instructive to examine this approach in order to illuminate how questions of survival and identity can be tackled under this increasingly influential theory.

The view, in broad outline, is that the mind and cognition extend beyond the boundaries of the brain and the body and include select aspects of the environment. In their paper 'The Extended Mind' Andy Clark and David Chalmers set out to challenge our assumptions that the mental is limited to what is 'in the head'. The claim is not that any part of the environment, any artefact or institution, can, on its own, exhibit cognition. Rather it is

the coupling of human and artefact together which make up one cognitive system¹¹⁸. Without the particular feature of the environment the agent has slighter cognitive capacities than when in conjunction with the artefact in question¹¹⁹.

The heart of the argument is found in the parity principle:

“If, as we confront some task, a part of the world functions as a process which, were it done in the head, we would have no hesitation in recognising as part of the cognitive process, then that part of the world is (so we claim) part of the cognitive process.”¹²⁰

To explain how they mean to apply the parity principle Clark and Chalmers describe three different examples in which a Tetris-like game is being played¹²¹. In one case an agent cannot actually manipulate the set of blocks on the screen in front of her, she can only imagine their rotation. In the second case the agent is playing a standard game of Tetris, and can either imagine the blocks rotating, or can physically press a button with her finger which then rotates the blocks on the screen. In the third scenario the agent has a neural implant which allows her to rotate the blocks on the screen as was done in the second example, but without any physical pressing of a button, but again can also imagine the rotation occurring since this ‘mental rotation’ and the implant-driven rotation on the screen use different cognitive processes. The claim that is made is that, if we think that both methods of manipulating the blocks in the third case should be classed as cognitive activities, then so too should the physical manipulation in the second scenario¹²². In effect, if the neural implant allows us to perform a further cognitive operation, on top of our being able to mentally rotate the blocks, then every method of rotating the blocks in each case is an instance of cognition.

This is exactly what the parity principle tells us should be the case. If a process is carried out outside of the brain, but is a process which, were it to be carried out in the head, we would call a cognitive one, then it also should be called a cognitive process. Clark and Chalmers give a host of examples of ways in which cognition extends in this way. In ‘Pressing the Flesh’ Clark describes an accountant who is proficient in the use of tables when she is working, and in particular copies down certain figures onto her workbook in order to keep them to hand as she continues to work¹²³. This saves some of her internal cognitive

¹¹⁸ Clark, Andy & Chalmers, David 1998: ‘The Extended Mind’ in *Analysis*: 58:1: 8

¹¹⁹ Clark & Chalmers 1998, pp. 8-9

¹²⁰ Clark & Chalmers 1998, p. 8

¹²¹ Clark & Chalmers 1998, pp. 7-8

¹²² Clark & Chalmers 1998, p. 7

¹²³ Clark, Andy 2006b: ‘Pressing the Flesh: A Tension in the Study of the Embodied, Embedded Mind?’ in *Philosophy and Phenomenological Research*, <http://www.era.lib.ed.ac.uk/bitstream/1842/1447/1/pressingtheflesh.pdf>, accessed 03.08.2007, p. 12

capacities which would be required in remembering which columns and rows to look to in order to find the figures she is using.

Another example of the extended mind (EM) is that of long multiplication¹²⁴; an agent multiplies each digit of one number with each digit of another. By writing down the products of each individual calculation and summing them later, the agent can calculate mathematical operations on larger numbers than biological memory will permit. The claim is that these situations are best understood, not as simple instances of an agent using a tool, but as occasions of the existence of a greater cognitive mechanism incorporating brain and elements of the environment. Clark has described this as the “Larger Mechanism Story”¹²⁵. According to the view the brain features as just an element of the larger cognitive mechanism, that also involves objects that common sense often suggests are merely tools.

Further examples given by Clark and Chalmers include the playing of Scrabble, language, books, diagrams and culture¹²⁶. In a game of Scrabble the tiles are arranged and re-arranged by a player to search for a high-scoring word¹²⁷. Another example is the solving of an anagram puzzle. The agent will write the letters of the anagram in a circle in a random order. If this particular arrangement does not bring to mind the word, the letters can be rearranged, again in a circle in the hope that the changes in combination will bring some indication of the word being sought. Without pen and pencil the agent will usually take longer to solve the puzzle and will put more of a strain on her internal cognitive capacities. With paper and pencil she forms a larger cognitive mechanism that solves the puzzle quickly.

The theory of extended cognition is more plausible the more regularly an agent relies on a part of the environment. The case of the agent solving an anagram puzzle is less convincing than an accountant who frequently uses a notepad to work with tables each day. Even so, given that she does so only at select times, her case is less convincing than that of someone who is constantly coupled to an external feature.

¹²⁴ Adams, Fred & Aizawa, Ken 2001: ‘The bounds of cognition’ in *Philosophical Psychology*: 14:1:43
Adams & Aizawa claim that long multiplication is not an example of the extended mind, but an example of tool use by a cognizer.

¹²⁵ Clark 2006b, p. 4

¹²⁶ Clark & Chalmers 1998, pp. 8, 9, 11-12

¹²⁷ Clark & Chalmers 1998, p. 8

4.2) Externalism versus Active Externalism

The argument is not merely that content is individuated externally, in the way that Putnam and Burge make the case for externalism about meaning. In their argument the environment is passive and need not be present when an individual has a thought with a certain content¹²⁸. The force of the Twin Earth argument lies in the fact that the content of my beliefs has already been individuated. The meaning is grounded historically. When I talk about water I mean *water*, and when my twin on twin earth talks about water she means *twin water* because each of our meanings has been set in place by a different causal chain¹²⁹. When I visit Twin Earth I may have a background belief that ‘water quenches thirst’. Unbeknownst to me when I am standing by a lake of XYZ, rather than H₂O, but nevertheless my thought is not about XYZ, but H₂O. It is not by being near XYZ that my belief has content, but because my historical learning of the word came about by instances of contact with H₂O. The XYZ and H₂O in question are not required to be present for me to have a thought about them. What is required is that at some point in my past I have come across H₂O (or XYZ if I am from Twin Earth).

Clark and Chalmers’ view is dubbed ‘active externalism’ because the environment plays an *active* and *constitutive* role in the cognitive process¹³⁰. The environment must be present in some way, because the larger mechanism story can only be used to describe a tightly coupled system in which an agent is joined with an external feature of the environment, and where the coupling involves a two-way interaction¹³¹. This is not merely an instance of me writing or drawing on pieces of paper which are then discarded. What has been written has then to affect my behaviour in some way, in the same way that internal cognitive processes do¹³². For the feature of the environment to partially constitute a cognitive system the relation between brain and object must be temporally-extended and must operate in both directions. It is not enough even that the paper affects my behaviour – my behaviour must also affect the paper in turn. The relation between the two must be mutually interactive so that it is difficult to separate ‘input’ from ‘output’.

¹²⁸ Clark & Chalmers, 1998, p. 9

¹²⁹ Clark & Chalmers, 1998, p. 9

¹³⁰ Clark & Chalmers, 1998, p. 8-9

¹³¹ Clark & Chalmers, 1998, p. 8

¹³² Clark & Chalmers 1998, p. 9

4.3) Extending Mental States

Clark and Chalmers expand their argument by claiming the parity principle should also be applied with regard to mental states¹³³. So, if some part of the environment functions in a way that, if it were contained in the head, we would label the entire process as the holding of a belief, then that part of the environment is part of the belief-holding system¹³⁴. They describe a man suffering from Alzheimer's disease whom they name Otto¹³⁵. Otto cannot remember new information which he learns using biological memory, so when he comes across something that he thinks will be useful to himself later on he makes a note of it in a notebook which he carries with him at all times. On learning the address and directions to the museum Otto writes them down in his notebook. When he decides at a later date to pay a visit to the museum he refers to his notebook and follows the instructions he finds therein, successfully making his way to his destination. Clark and Chalmers argue that Otto's notebook should not be considered merely as a tool which Otto uses occasionally, but as part of a belief-remembering system that includes Otto¹³⁶. By carrying around his notebook Otto has a host of dispositional beliefs about where things are and how to carry out certain actions. Because Otto acts on the contents of his notebook in the same way he would act on an internal belief, and because it is easily accessed, and the content is immediately endorsed by Otto when he reads the information it contains, Otto's notebook should count as part of his belief system¹³⁷. Thus Otto's notebook is unlike my occasional use of a notebook because of the fluidity and frequency with which he uses it, the fact that he has become coupled with it in a two-way interaction, and because it has become integrated into his ongoing cognitive and behavioural activity.

¹³³ Clark & Chalmers 1998, pp. 12-16

¹³⁴ Clark & Chalmers, 1998, p. 12

¹³⁵ Clark & Chalmers 1998, pp. 12-16

¹³⁶ We can contrast Otto's use of his notebook with an example of tool use. I can use a tape measure to measure the width of a bookcase so as to discover whether the piece of furniture will fit in the space I want to put it. Once I have measured the bookcase and the allotted space I will use the information garnered in order to make a decision about whether or not I can place the former in the latter. However, the tape and myself do not form a Larger Cognitive Mechanism because my relation to the tape measure is fleeting. Whilst I do endorse the lengths which I find both object and space to be according to the measuring tape's markings, and whilst the tape is easily used, the tape and I are not tightly coupled. My decision to put the bookcase in the space is carried out after I have used the measuring tape, and whilst my findings will affect my behaviour, my behaviour has no corresponding affect on the tape. Moreover, there is no parallel process that could take place in the head by which we could accurately measure two different lengths in order to see if one is smaller than the other.

¹³⁷ Clark & Chalmers 1998, pp. 12, 17

In applying the parity principle to Otto's notebook, Clark and Chalmers claim that artefacts can form part of the larger belief-holding system. When they compare Otto to an agent whose beliefs are stored in biological memory they write:

“In both cases the information is reliably there when needed, available to consciousness and available to guide action, in just the way we expect a belief to be.”¹³⁸

Otto and a 'normal' agent Inga act in the same way when each decides to go to the museum¹³⁹. Inga consults her internal belief about the location of the museum and follows the information contained therein. So too, when Otto makes the decision to go to the museum, he consults his notebook and follows the information on the page. Clark and Chalmers claim that the alternative explanation of Otto's actions – a decision to go to the museum combined with a standing belief that directions to the museum are in his notebook and the relevant inscription on the page of the notebook – is unnecessarily complex in the same way that it is unnecessary to explain Inga's acting on a belief because of her background beliefs about the reliability or content of her memory¹⁴⁰.

In order to avoid indiscriminate seepage of the mind into the environment Clark and Chalmers apply conditions to the EM (Extended Mind), including the reliability¹⁴¹ and directness¹⁴² of the availability of a feature of the environment, as well as the automatic endorsement of the information stored in the environment¹⁴³. This means that my mind does not extend to all objects around me at any time, unless I am reliably and directly coupled with them, and that I automatically endorse the information stored in the environment. This should answer an obvious criticism: the objection that the EM leads to a grotesque expansion of the mind and cognition into every part of the environment around us¹⁴⁴. If the argument for the EM is only thought to apply in situations to which the above conditions apply, then we can avoid the worry that the mind will be considered to absorb all and everything around it.

Another example of the way cognition extends into the environment involves the way that in hospital wards a chart that records the results of observations made on a patient is hooked onto the patient's bed. A patient's temperature, blood pressure, respiration, blood/sugar levels, oxygen saturations, pain scores and levels of consciousness are recorded

¹³⁸ Clark & Chalmers 1998, p. 13

¹³⁹ Clark & Chalmers 1998, p.13

¹⁴⁰ Clark & Chalmers 1998, p. 13

¹⁴¹ Clark & Chalmers 1998, p. 15

¹⁴² Clark & Chalmers 1998, pp. 15-16

¹⁴³ Clark & Chalmers 1998, p. 17

¹⁴⁴ Adams & Aizawa 2001, p. 57

on these charts over time. Whilst working in a busy hospital ward a doctor will often leave and return to a patient's bedside several times over. On each occasion she might assess the patient's condition using the statistics on the patient's observation chart. Instead of remembering the patient's condition in a detailed series of figures 'in the head', the doctor will refer back to the chart to recall the previous recordings she has made. As such the observation chart is easily accessed (by the patient's bed) and reliable, as well as being automatically endorsed by the doctor. The doctor and observation chart act together as a remembering system. Alone the observation chart is not a memory of the previous condition of the patient, but also the doctor without the chart cannot recall the patient's condition either, given that she has had to see a series of other patients since her last visit to this patient's bed. When coupled together the doctor and observation chart are an integrated system. I am not claiming that it is not the doctor that, after making a decision, cures the patient. My claim is merely about the doctor's increased ability to recall certain figures and statistics when coupled with the observation chart, than without it. This should be understood not as an agent using a tool, but as an instance of the existence of a larger cognitive mechanism incorporating brain and an element of the environment, in this case the doctor and the patient's observation chart.

4.4) The objection from intrinsic content

Adams and Aizawa have objected to the argument for the EM, claiming that whilst they accept the parity principle, they think there are no actual instances of the mind extending into the environment¹⁴⁵. Their reasoning is that, whilst the EM is logically and nomologically possible, all instances of cognition are 'in the head'¹⁴⁶. This is because, they claim, the 'mark of the cognitive' is intrinsic content¹⁴⁷. So, whilst it is possible that cognition could extend into the environment, or what they call 'transcranialism' might be possible, they in fact defend a "contingent intracranialism about the cognitive."¹⁴⁸ Rather than interpreting the use of pencil and paper in working out accounts as the operations of a larger cognitive mechanism incorporating human and artefacts, Adams and Aizawa opt for the common sense view that

¹⁴⁵ Adams & Aizawa 2001, p. 46

¹⁴⁶ Adams & Aizawa 2001, p. 47

¹⁴⁷ Adams & Aizawa 2001, pp. 48-51

¹⁴⁸ Adams & Aizawa 2001, p. 43

my internal cognitive processes interact with the features of the environment, in the same way that using a hammer is an example of tool use¹⁴⁹. Use of the hammer could be explained as the operations of a larger physical system, but the natural boundaries between body and hammer give us more explanatory power than viewing the whole as a single entity.

In accepting the parity principle, Adams and Aizawa accept that being inside the head is not what makes a process cognitive¹⁵⁰. To claim this would be to beg the question against the EM. However, they claim that in setting about finding out what the ‘mark of the cognitive’ is, we will discover that all real world cognitive processing happens to be found in the head¹⁵¹. The argument for this is that, according to Adams and Aizawa, “a first essential condition on the cognitive is that cognitive states must involve intrinsic, non-derived content.”¹⁵² Whilst the meanings in written and spoken language seem to be derived from the representational capacities of cognitive agents, the cognitive states of these agents, it is argued, are underived¹⁵³. Adams and Aizawa claim that this underived nature of the content of our cognitive states, makes the content in some way intrinsic, in a way that external symbols are not¹⁵⁴. Any representational capacity that a feature of the environment has, they argue, is non-intrinsic, and thus cannot be claimed to take part in real cognitive processing.

Clark has pointed out that it is difficult to get a grasp on what is meant by ‘intrinsic’ when it comes to content¹⁵⁵. Susan Hurley also argues in ‘Varieties of Externalism’ that language can alter our cognitive capacities, building upon what exists and enhancing it¹⁵⁶. When a child learns to speak, her language learning may build upon existing mental content, which it might be possible to claim is intrinsic¹⁵⁷. Nevertheless, “further mental contents also build on language, so that their content is presumably also derived.”¹⁵⁸ Despite this fact we do not hesitate to think of this ‘in the brain’ content as cognitive¹⁵⁹.

Another argument Hurley offers against the objection from intrinsic content involves imagining the building of a robot, the content of whose ‘cognitive’ states has all been derived

¹⁴⁹ Adams & Aizawa 2001, p. 46

¹⁵⁰ Adams & Aizawa 2001, p. 46

¹⁵¹ Adams & Aizawa 2001, p. 46

¹⁵² Adams & Aizawa 2001, p. 48

¹⁵³ Adams & Aizawa 2001, p. 48

¹⁵⁴ Adams & Aizawa 2001, p. 48-9

¹⁵⁵ Clark, Andy 2005: ‘Intrinsic Content active memory and the extended mind’ in *Analysis*: 65:1:1

¹⁵⁶ Hurley (Forthcoming), p. 21

¹⁵⁷ Hurley (Forthcoming), p. 21 The idea here of intrinsic content is presumably something like innate prelinguistic ideas, rather than an innate grammar.

¹⁵⁸ Hurley (Forthcoming), p. 21

¹⁵⁹ Hurley (Forthcoming), p. 21

from the creator's mental states¹⁶⁰. According to Adams and Aizawa the robot would in fact have no cognitive states as such. However, we can run a similar argument according to which the content of every human's mental states is derived from a divine creator who has made the world and all the creatures in it¹⁶¹. If this were so, we would also have to deny that any of our cognitive capacities are in fact cognitive. We would lack the 'mark of the cognitive' also.

Unless we are prepared to reduce what is cognitive to the small portion of mental content that is in no way derived (in the case of learning language as a child)¹⁶², then we should abandon Adams and Aizawa's claim that mental content must be intrinsic. This is something Adams and Aizawa hint at themselves, when they admit that "it is unclear to what extent each cognitive state of each cognitive process must involve non-derived content."¹⁶³ If this is so, then even if all cognitive processing requires some non-derived content, we can still claim that the EM is an actual occurrence in the world. Clark and Chalmers do not seek to argue that notebooks, speed dialling programs on telephones¹⁶⁴, or tiles in Scrabble games are, *on their own*, cognitive systems. It is only when reliably coupled with a cognitive system that these elements of the environment extend our cognitive powers.

4.5) Applying the Extended Mind to personal identity

In *Being There* Clark mentions an anecdote from a friend working with Alzheimer's patients in Washington¹⁶⁵. The friend reports how she discovered that the patients had organised, labelled and systemised their homes so as to be able to aid their biological memory which was beginning to fail. They had labelled photographs and kept all the household objects that they needed regularly in plain view. When taken into a care home for assessment the patients had largely degraded cognitive abilities, yet when in their own environments they could look after themselves and recall people and events. This seems to be an excellent example of the ways in which the mind extends into the environment. Being taken from their habitual environment might even be enough, I want to suggest, to alter their identity.

¹⁶⁰ Hurley (Forthcoming), p. 21

¹⁶¹ Hurley (Forthcoming), p. 21

¹⁶² Hurley (Forthcoming), p. 21

¹⁶³ Adams & Aizawa 2001, p. 50

¹⁶⁴ Adams & Aizawa 2001, p. 44

¹⁶⁵ Clark, Andy 1998: *Being There*, Cambridge, Massachusetts: MIT Press, p. 66, see also Clark, Andy 2003: *Natural-Born Cyborgs*, New York: OUP, pp. 139-141

This idea is poignantly described by Primo Levi in his record of the treatment of Jewish people by the Nazis in the 1940s in *If This is a Man*¹⁶⁶. Levi writes:

“Then for the first time we became aware that our language lacks words to express this offence, the demolition of a man. In a moment, with almost prophetic intuition, the reality was revealed to us: we had reached the bottom. It is not possible to sink lower than this; no human condition is more miserable than this, nor could it conceivably be so. Nothing belongs to us any more; they have taken away our clothes, our shoes, even our hair; if we speak, they will not listen to us, and if they listen, they will not understand. They will even take away our name: and if we want to keep it, we will have to find ourselves the strength to do so, to manage somehow so that behind the name something of us, of us as we were, still remains.

We know that we will have difficulty in being understood, and this is as it should be. But consider what value, what meaning is enclosed even in the smallest of our daily habits, in the hundred possessions which even the poorest beggar owns: a handkerchief, an old letter, the photo of a cherished person. These things are part of us, almost like limbs of our body; nor is it conceivable that we can be deprived of them in our world, for we immediately find others to substitute the old ones, other objects which are ours in their personification and evocation of our memories.

Imagine now a man who is deprived of everyone he loves, and at the same times of his house, his habits, his clothes, in short, of everything he possesses: he will be a hollow man, reduced to suffering and needs, forgetful of dignity, and restraint, for he who loses all often easily loses himself. He will be a man whose life or death can be lightly decided with no sense of human affinity, in the most fortunate of cases, on the basis of a pure judgement of utility. It is in this way that one can understand the double sense of the term ‘extermination camp’, and it is now clear what we seek to express with the phrase: ‘to lie on the bottom’.”¹⁶⁷

Levi suggests that the stripping away of the clothes and hair, as well as their other possessions, of the Jewish people forcibly taken to Auschwitz is an extermination of the person. This removal of personal identity then leaves the Nazis in a position where they need not think of these humans as anything more than ‘pieces’, and whose lives hold no intrinsic value. By stripping them of their possessions and taking them from their homes the Nazis have reduced them to something they can consider beneath them, whom they don’t have to pay attention to. Levi’s account captures the way in which what makes us the people we are can supervene on features of the environment and culture. The argument for the extended mind suggests that familiar objects and habits form part of the supervenience base for our long-term dispositional beliefs and attitudes, which are constitutive of our identity.

If we return to Parfit’s original explanation of psychological continuity we can recall that what was considered significant to personal identity was our memories, beliefs, desires

¹⁶⁶ I am indebted to Dave Ward for pointing me towards this book and passage as apt to this discussion.

¹⁶⁷ Levi, Primo 1979: *If This Is A Man and The Truce*, trans. Stuart Woolf, London: Penguin, pp. 32-33

and intentions. To at least two of these kinds of mental states we can apply the argument for EM – beliefs and memories. Specifically, I want to argue that psychological continuity should not be understood merely as what goes on ‘in the head’, but as something that can, at times, incorporate elements of the environment. Psychological continuity does not always require just the continuity of the brain, but sometimes might also require the continuity of a notebook, or some other element of the environment.

So far I have concentrated on beliefs and memories, but it might be possible to think of intending to do something as requiring one to be tightly coupled with the environment. I might I programme my mobile phone to remember someone’s birthday, or to remind me to do something. When I set an alarm I intend to be woken up at a certain time. It might be as well to think of myself and the alarm clock as a larger mechanism. The alarm’s ringing in the morning will result in my switching it off and, hopefully, getting up as I intended. When I switch it off the alarm will cease ringing and will not ring again until the next morning. Alternatively, if it has a ‘sleep’ function, meaning that when I press the ‘sleep’ button it will cease ringing for a short duration before ringing once again, the alarm and myself interact in ensuring that I will, eventually get up. There may be better examples than this, but it is not obvious that intentions cannot also be included in our theory of the extended mind. If they are, then this gives us more reason to think of personal identity as requiring some continuity of environment.

4.6) Teletransportation II

If you recall, Parfit argues that the possibility of teletransportation creates a significant problem for us, namely reduplication. If my psychological states can be reduplicated, and if personal identity just consists in psychological continuity, then we have to decide how we are going to deal with situations in which an individual has, effectively, split in two. In the face of this problem, Parfit differentiates between personal identity and survival. Identity, being a one-one relation, requires uniqueness, whereas survival can hold between me and any number of future persons. I can be reduplicated many times over and in every case I will have survived.

The motivation for this claim was the possibility that I (*A*) might step into a teletransporter which then malfunctions. Instead of destroying my body on Earth before the replica (*C*) is created on Mars, my body on Earth (*B*) is left intact. I (*B*) continue to exist on Earth and Replica (*C*) has been created on Mars – there seem to be two of me. Parfit has

rejected the possibility that bodily continuity might count as part of our criterion for personal identity. Bodily continuity matters only in so far as it ensures psychological continuity. Parfit has already accepted that psychological continuity can be transmitted through a signal and ‘uploaded’ as it were, to a new body, so *B* has no greater claim to personal identity with *A* than *C* does. According to Parfit’s understanding of the problem, this does seem to be a case of a person fissioning in two. But, identity is one-one – it cannot hold between both *A* and *B* and *A* and *C*. If this were true then *B* and *C* would have to be quantitatively identical, for identity is a transitive relation. We know this is not the case: *B* and *C* are distinct individuals. So, Parfit adds to his criterion of personal identity that there can be no ‘branching’, that personal identity can only hold uniquely, but allows that these cases should be understood as examples of survival. I survive in so far as I have everything I would need for personal identity excepting uniqueness.

What is more, Parfit claims we should not care about personal identity, but survival instead. When he describes the malfunctioning teletransportation thought experiment he describes how the teletransporter has not destroyed my body but has left my heart fatally damaged. I can expect to live for only a few days more, so, Parfit asks, how do I feel about my circumstances? He argues that because everything I care about (my psychological states) have survived in the instantiation of *C* on Mars, I should feel almost as good as I would in ordinary survival. Whilst *B* on Earth will soon die, Parfit thinks this scenario is nothing like ordinary death because of the existence of *C*. Recall that in the original teletransportation experiment when *A* is destroyed and *C* created, Parfit is only too happy to call *C* identical with *A*. If I think I am identical to *C* in this situation, then in the second experiment now in question I must be at least as contented as I would be in a case of ordinary survival.

Now, the argument for the Extended Mind may give us reason to object to Parfit’s appraisal of this situation. Specifically, in the scenario presented there may be some way to tell the difference between *B* and *C*. *B* does have environmental continuity in a way that *C* on Mars does not, so there may be some beliefs and memories that *C* does not have, which *B* continues to have. In such a scenario, *B* is more psychologically continuous with the person who stepped into the teletransporter than *C*, so according to Parfit’s criterion as I have adapted it, *B* is identical to *A*, and *C* is not. Even in such a scenario we can still have personal identity, and do not need to rely on survival, because there is no real branching.

On the view I am proposing the conditions placed on the EM, those of the reliability and directness of the availability of a feature of the environment, as well as the automatic endorsement of the information stored in the environment, should also apply to personal

identity. For a feature of the environment to count as part of the person the coupling between human and artefact has to be exceptionally close.

What is significant is that we need not be aware of how we do extend into the environment in order to do so. If our intuitions about where our minds end can be misleading, then so too can our intuitions about what is necessary for personal identity.

Andy Clark has written about the possibility that the extension of the mind could have some effect on us as persons. His response is at times positive, but is on the whole mitigated. In *Being There* he admits that:

“taken to extremes, this seepage of the mind into the world threatens to reconfigure our fundamental self-image by broadening our view of persons to include, at times, aspects of the local environment.”¹⁶⁸

A similar attitude is found at the end of ‘The Extended Mind’ where Clark and Chalmers write that:

“My dispositional beliefs, for example, constitute in some deep sense part of who I am. If so, then our previous discussion implies that these boundaries may also fall beyond the skin.”¹⁶⁹

However, more cautiously, Clark also advises that:

“An alternative (and, I think, equally acceptable) conclusion would be that the agent remains locked within the envelope of skin and skull, but that beliefs, knowledge, and perhaps other mental states now depend on physical vehicles that can (at times) spread out to include select aspects of the environment.”¹⁷⁰

Clark’s understanding then is that whilst the agent must be thought of as the human animal within skin and skull, some mental states can extend into the environment. And it is my contention that personal identity should be understood in terms of mental states, the holding of some of which requires a coupling between agent and environment. Whilst Clark does limit agents to the body and brain, his claim is not inconsistent with mine about identity.

Caution, though, may prove to be a sensible approach, not least because the application of the EM to the cases of teletransportation I have described above comes up against a significant set of problems.

¹⁶⁸ Clark 1998, p. 214

¹⁶⁹ Clark & Chalmers 1998, p. 18

¹⁷⁰ Clark 1998, p. 218

4.7) Otto's notebook and the teletransporter

Clark and Chalmers argue that there is, in principle, no reason why the cognitive mechanism may not incorporate two different agents¹⁷¹. In the case of an especially close couple, the memories of one might serve as storage to the other – when the one cannot recall the name of a friend, the other is at hand to inform him. The idea is that together the two form a cognitive system that remembers the name. Without his wife, the husband cannot remember the name, but with her, he is able to. Does this mean that one person can be constituted by two different humans at a time? To choose this conclusion would be misleading; it is not the case that two humans constitute one person, but that what constitutes the husband includes some of the mental states of his wife.

However, a more significant objection that my proposal faces is that Parfit might re-imagine his thought experiment to include Otto's notebook. We can imagine that Otto decides to take a trip to Mars, and to do so enters the teletransporter. Our teletransporter has been developed to take account of the extension of the mind into features of the environment, and so Otto's notebook, which he always carries with him, is replicated on Mars just as Otto himself is. So the individual who steps out of the teletransporter clutches a notebook with the same facts and addresses that Otto's notebook on Earth contained. Whilst this notebook contains information about how to get to museums on Earth, Otto is well aware of this. He can continue to use it to jot down new information he thinks he will need, and will still refer to it, say, if his friend telephones from Earth to ask him where a particular restaurant they both like is situated.

It might seem improbable that we can enter the teletransporter with all the elements of the environment that are incorporated in a series of larger cognitive mechanisms, but it is going to be difficult, if not impossible, to show that doing so is logically impossible. To do so would require an argument proving that in every case of teletransportation (a) the individuals holding of psychological states in part incorporates elements of the environment, and (b) these elements of the environment cannot be taken into the teletransporter and replicated.

Parfit's decision to make psychological connectedness suitable for psychological continuity only if *at least half* of the psychological states of one person-stage are in common with half of the states of the neighbouring person-stage does seem to be arbitrary. However,

¹⁷¹ Clark & Chalmers 1998, p. 17

even if we do not specify the number of psychological states that are required to be the same for continuity, it is not obvious that the greatest proportion of our psychological states require an element of the environment to be present in order to exist at all. And it would be counterintuitive to claim that total psychological connectedness is required to be the same person. I do not hold many of the beliefs I held five or ten years ago, yet I maintain that I am the same person. The appeal of psychological continuity is that it allows for some alteration in psychological states as time passes *without* the loss of identity. However, if some psychological transience is acceptable, usual even, then we can allow that the psychological states dependent on the close coupling of human and environment are lost whilst identity is maintained. If Otto were not particularly dependent on his notebook, then the failure of it being replicated on Mars would not affect his personal identity.

We might still want to argue that if Otto is replicated on Mars, but his body is not destroyed on Earth, and moreover the teletransporter cannot replicate his notebook, then Otto on Earth afterward is more psychologically continuous with Otto before, than Martian Otto is with Otto before. But this does not give us a response to the possibility of the key feature of the environment being replicated. Nor does it deal with the objection that the mental lives of some individuals might not extend into the environment at all. Given that the coupling between human and artefact is supposed to be exceptionally close (the artefact must be reliably to hand, there must be a two-way interaction between the two, and the artefact must be involved in causal processes in the same way internal mental states are) it is unlikely that persons do seep unconsciously into all around them. Whilst we need not be explicitly aware of the item and oneself making a larger cognitive mechanism, we are likely to be aware of some dependence on the artefact in question. The more I use my diary to keep a record of what I have to do in the near future, the more I am aware of its importance to me. That I do not consider myself dependent on a multitude of things around me, exhibits my intuition that in fact, if the EM story is true, it is so to a somewhat limited extent. If it cannot be shown to be widely applicable in everyday life, then there is little hope of it aiding us in a defence of our account of personal identity against cases of reduplication. Even an account of the EM that treats humans as substantially extended into their environments does not guard against the logical possibility of reduplication. Unless we can establish that all individuals extend into the environment in such a way that cannot be duplicated, then the argument for the EM has turned out to be unhelpful.

Nonetheless, the argument for the EM does suggest that large bits of our identities can be interestingly and unexpectedly dependent on features of our local environment. Whilst

it fails to undermine teletransportation, active externalism has shown us a way of understanding personal identity that is ignored in traditional debates about personal identity. The psychological properties we think are important for personal identity can be constituted to a surprising extent by the environment. As we will see in the next chapter, they are also constituted by the body.

Chapter 5

5.1) Embodiment

The Extended Mind hypothesis is not the only class of externalism worth examining in an analysis of personal identity. By introducing arguments for embodiment we begin to see the brain and body as intimately connected in the processing of, for example visual information. Like traditional and active externalism, this view of the mind will not furnish us with a way to avoid reduplication altogether, but it does help us narrow cases of reduplication to the more far-fetched science fiction type thought experiments, rather than the perhaps more scientifically plausible brain transplant.

Given that the normal cause of person-stages being connected to one another involves bodily continuity as well as psychological continuity I will examine certain views in philosophy of mind that emphasise embodiment rather than the more traditional ‘Classical Sandwich’¹⁷² of sensing, thinking and acting (as separate and sequential processes). If we find that embodiment is significant in either the content or enabling of our mental lives then psychological continuity might require more than continuity of brain cells. I will examine two different accounts of embodiment and the ways in which it plays a role in constituting our experiences of the world and the thoughts we have.

There are a range of ways in which embodiment is thought by some to play a significant role in either our experience of the world or our thoughts about the world. I will examine those presented by Kevin O’Regan and Alva Noë, and by Lawrence Shapiro because

¹⁷² Hurley 2002, p. 20-21

their accounts are the most fully formulated and their approaches are characteristic of the embodiment trend in the literature.

O'Regan and Noë present a view according to which perception of the world is constituted by the exercise of knowledge of the ways in which movement and action will alter the nature of our sensory stimulation. Our embodiment is significant because it is our particular physical structure that enables a certain range of movements, and therefore lets us know various things about the world. Our physical structure determines the effects that movements will have on sensations, such as the particular way our retinas are curved. A radically different body would result in a radically different phenomenology of experience.

Shapiro argues against the possibility that the human mind could be contained within any kind of body. He argues that the brain cannot be casually separated from the body because the interface between brain and body is complex, rather than simple. In addition he claims that particular details about our embodiment are such as to contribute to the way we experience the world, and so contribute to the phenomenology of our experiences.

5.2) O'Regan and Noë

In 'Varieties of Externalism' Hurley outlines four different forms of externalism. There are two forms of 'what'-externalism: content and quality. In contrast 'how'-externalism makes claims about the vehicles of content and quality. 'What'-content externalism concerns the nature of the contents of mental states such as beliefs and desires¹⁷³. This kind of externalist explanation we examined in chapter three, and found it to be of little use to us against reduplication of personal identity. 'What'-quality externalism is concerned with the phenomenological aspects of human experience¹⁷⁴. The claim is that the experiential feel is, in some sense, partially external to the traditional concept of the perceiver as locus of inputs and outputs.

'How'-content externalism, also known as enabling externalism and vehicle externalism by Hurley, is the view that the enabling of mental processing can be at least in part external to the human¹⁷⁵. It is the view that cognition extends beyond the traditionally conceived boundaries of the brain or the body into the environment, as discussed in chapter four. This kind of externalist explanation did not give us a way of resisting the possibility of

¹⁷³ Hurley (Forthcoming), pp. 1-2

¹⁷⁴ Hurley (Forthcoming), pp. 1-2

¹⁷⁵ Hurley (Forthcoming), pp. 1-2

reduplication. And lastly, according to ‘how’-quality externalism the phenomenological feel is also due to external factors, rather than merely what is experienced being external to the agent¹⁷⁶. O’Regan and Noë’s account fits into the ‘how’-quality externalism category outlined by Hurley.

Unlike the standard view, according to which visual experience is the activation of internal representations¹⁷⁷, O’Regan and Noë have argued that phenomenology is best thought of as “exploration of the world that is mediated by knowledge of what we call sensorimotor contingencies.”¹⁷⁸ By sensorimotor contingencies O’Regan and Noë are pinpointing the ways in which different kinds of movement will affect patterns of sensory input.

They do not deny the existence of cortical maps or that these give us information about the world, but they do claim that their mere existence does not explain what perception is.¹⁷⁹ Whilst standard views of perception posit detailed internal representations, the activation of which is supposed to explain how we see, O’Regan and Noë question this account because it fails to explain visual consciousness¹⁸⁰.

To explain this something else is needed. As well as filling this gap, O’Regan and Noë claim that their enactive approach to perception also explains another problem, a problem that Hurley and Noë call the “intramodal” explanatory gap¹⁸¹. The challenge is to understand why certain experiences, say of two different colours (red and pink) are more alike than the experience of red and the experience of black¹⁸². A related problem has been labelled by Hurley and Noë as the “intermodal” explanatory gap¹⁸³. The problem is in understanding why seeing a colour, for example, is different to the experience of the other modalities, such as hearing a sound¹⁸⁴.

Their claim is that we differentiate so easily between experiences from different modalities because “the structure of the rules governing the sensory changes produced by various motor actions” differ over different sensory modalities¹⁸⁵. Whilst we may not be aware of these rules themselves, our brains do register the different ways in which action and

¹⁷⁶ Hurley (Forthcoming), pp. 1-2

¹⁷⁷ O’Regan, J. Kevin & Noë, Alva 2001: ‘A sensorimotor account of vision and visual consciousness’ in *Behavioral and Brain Sciences*: 24:5:939

¹⁷⁸ O’Regan & Noë 2001, p. 940

¹⁷⁹ O’Regan & Noë 2001, p. 939

¹⁸⁰ O’Regan & Noë 2001, p. 939

¹⁸¹ Hurley, Susan & Noë, Alva 2003: ‘Neural Plasticity and Consciousness’ in *Biology and Philosophy* 18: 132

¹⁸² O’Regan & Noë 2001, p. 940

¹⁸³ Hurley & Noë 2003, p. 132

¹⁸⁴ O’Regan & Noë 2001, p. 940

¹⁸⁵ O’Regan & Noë 2001, p. 941

movement will produce different perceptual arrays¹⁸⁶. So, for example, our visual apparatus brings about one set of (perhaps an infinite number of) sensorimotor contingencies – the movements of my eyes as they survey the room bring about changes in the way the retinal image is displayed¹⁸⁷. Blinking is also significant in the way we visually perceive the world, whereas, blinking does not affect our auditory awareness in the way that moving one's head to the right or left might¹⁸⁸. So, facts such as these give us a reason for the differences in phenomenology between the different sense modalities:

“a crucial fact about vision is that visual exploration obeys certain laws of sensorimotor contingency. These laws are determined by the fact that the exploration is being done by the visual apparatus.”¹⁸⁹

But what does the account of sensorimotor contingencies have to say about our experiences themselves? If the specific laws of sensorimotor contingency for each modality explain the differences between the sense modalities, then these laws must be responsible for the experiential feel itself. O'Regan and Noë claim that “the visual quality of shape is precisely the set of all potential distortions that the shape undergoes when it is moved relative to us, or when we move relative to it.”¹⁹⁰ So perceiving a square shape involves the knowledge of how my actions and movements, or the movement of the object, might affect the shape I see. If I move to the right a little way, then I will no longer see an object with four right-angles, but with two obtuse angles, and two acute ones. O'Regan and Noë give this account of what they call visual attributes, such as shape, colour and size. There are therefore sensorimotor contingencies relative to the attributes of an object, and there are also sensorimotor contingencies that are “induced by the visual apparatus.”¹⁹¹ The sensorimotor contingencies that are so induced by our sensing apparatus are those that lead us to differentiate between seeing, hearing, smelling, touching and tasting as described above. The sensorimotor contingencies that depend on the objects (as well as those dependent on our sensory apparatus) themselves are those that give rise to the specific phenomenology of seeing a green tree, or hearing a piercing whistle.

Now, these sensorimotor contingencies themselves are not what visual perception is: for that something else is required. In order to be a visual perceiver, O'Regan and Noë propose that as well as these laws of sensorimotor contingency dependent on apparatus and

¹⁸⁶ O'Regan & Noë 2001, p. 944-5

¹⁸⁷ O'Regan & Noë 2001, p. 941

¹⁸⁸ O'Regan & Noë 2001, p. 941

¹⁸⁹ O'Regan & Noë 2001, p. 941

¹⁹⁰ O'Regan & Noë 2001, p. 942

¹⁹¹ O'Regan & Noë 2001, p. 940

object to be in place, the individual must be “*actively exercising* its mastery of these laws.”¹⁹² In order to see we must make use of our knowledge in planning actions and thinking about what to do¹⁹³. The difference they wish to identify between visual perception and visual awareness can be brought out by considering the difference between perceiving a landscape and seeing a tree in the centre of the landscape. I do not notice the details of all the plants, flowers and trees in the landscape, and I do not see the colour of the sky to the far left and right of me. When I look at a specific tree though I can see some of the details of the branches and leaves, and I can make out the fruit hanging from those branches. By combining my knowledge of the laws of sensorimotor contingency relevant to myself and the objects in front of me, with my abilities to think and act I become visually aware of the tree¹⁹⁴.

As mentioned earlier, my knowledge of the laws of the sensorimotor contingencies is practical and is not propositional in nature¹⁹⁵. I am not aware of the laws as laws, but this does not mean the brain does not register the difference between a red object and a green object via its sensitivity to such laws. In doing so we experience one object as red and the other as green. Our sensation of seeing a red object is explained by this practical knowledge of the ways in which changes in the object would result in changes in our experience. It is in this way that O'Regan and Noë hope to close the explanatory gap. The hard problem of consciousness is thought to be the problem of explaining why it is we experience the world at all. If sensing the world is concerned with pick-up of information, then why is it that we have phenomenology associated with our information gathering? The hard problem is often described as the problem of explaining qualia – the phenomenal properties of an experience, as opposed to the intentional qualities of an experience¹⁹⁶. A related problem (the explanatory gap¹⁹⁷) is that of explaining conscious experience in purely physical terms. The existence of phenomenal qualities has led many a philosopher to be dualistic in their treatment of the mind and consciousness. O'Regan and Noë think that, in fact, the explanatory gap is the result of a category mistake¹⁹⁸. They deny that experiences are states, suggesting they are ways of acting instead; since qualia are supposed to be properties of states, if there are no such states, then there are no qualia to be explained. By re-categorising experiences they do not intend to deny that we have phenomenological experiences, but they do deny that our experiences are states,

¹⁹² O'Regan & Noë 2001, p. 943

¹⁹³ O'Regan & Noë 2001, p. 944

¹⁹⁴ O'Regan & Noë 2001, p. 944

¹⁹⁵ O'Regan & Noë 2001, p. 944-5

¹⁹⁶ O'Regan & Noë 2001, p. 960

¹⁹⁷ Levine, J 1983: 'Materialism and Qualia: the explanatory gap' in *Pacific Philosophical Quarterly*: 64: 354-361

¹⁹⁸ O'Regan & Noë 2001, p. 960

and so they reject the possibility that our experiences have qualia. For them the qualitative character of our experiences is an aspect of the activity of seeing¹⁹⁹. If phenomenology really is just the knowledge of sensorimotor contingencies, then we have answered the hard problem of perception.

It is the specific details of our embodiment that contribute to our perceptions of the world. So, the argument might go, different kinds of embodiment would give us different perceptual experiences. Obviously different kinds of movement affect what we see. When I look to the side I no longer see the computer screen in front of me, but instead become aware of the open window and the garden outside. This is a trivial way in which my movement affects my visual experience: trivial because the movement is instrumental in affecting my perception²⁰⁰. On the enactive approach to perception the claim is that seeing itself just is the practical exercise of knowledge of how movement of the body, and knowledge of our particular sensing apparatus, will effect a precise perception.

O'Regan and Noë give the example of seeing a straight line²⁰¹. As I gradually look along the length of a straight line I will see still more of the line in my line of sight. However if I move my head up or down, the straight line will move out of my foveal vision²⁰². If my visual apparatus were different, for example if my eyes were in a different place, or if I had one eye rather than two, then the ways such movements would affect my experience would be different. The sensorimotor contingencies that depend on our perceptual apparatus would be different as a result, which would hence mean that the phenomenology of our experiences would be different.

Another useful example of the way our bodies play a role in our experiences is found in Noë's book *Action in Perception*. Noë writes:

“Suppose you are in an airplane. At takeoff it will look to you as if the front of the plane, the nose, rises or lifts up in your field of vision. In fact, it does not. Because you move with the plane, the nose of the plane does not lift relative to you. No lifting, strictly speaking, is visible from where you sit. What explains the illusion of the apparent rising of the nose? When the plane rises, your vestibular system detects your movement relative to the direction of gravity. This causes it to look to you as if the nose is rising. The nose is rising, and it looks to you as if it is. But not for visual reasons.”²⁰³

¹⁹⁹ O'Regan & Noë 2001, p. 960

²⁰⁰ Clark 2006b, p. 6

²⁰¹ O'Regan & Noë 2001, p. 941

²⁰² Clark 2006b, p. 7

²⁰³ Noë, Alva 2004: *Action in Perception*, Cambridge, Massachusetts: MIT Press, p. 26

Noë takes this as an example of the way that our visual experience depends “on idiosyncratic aspects of our sensory implementation.”²⁰⁴

5.3) Shapiro

In *The Mind Incarnate* Shapiro argues against the multiple realizability of the mind, as well as what he calls the separability thesis (ST). According to many philosophers, the mind could be realised in a number of different ways, and not just by human brains: it is multiply realisable²⁰⁵. In opposition to this Shapiro claims we should advocate the ‘Mental Constraint Thesis’, according to which “there are few ways to realise the mind”²⁰⁶. In conjunction with this, he argues against the ST and in favour of the ‘Embodied Mind Thesis’ (EMT): “bodies are more thoroughly integrated with minds than is typically acknowledged.”²⁰⁷

In making his argument in favour of EMT, Shapiro claims that the interface between brain and body is too complex to allow them to be separated easily. Shapiro takes his cue from John Haugeland, who claims that we should understand components of an entity as the parts that are “relatively independent and self-contained.”²⁰⁸ Shapiro follows Haugeland in arguing that if we understand components in this way, then the body and brain are not easily and simply separable. He cites Haugeland’s example of the division of a television²⁰⁹. If we divide a television into a series of cubes, irrespective of where the various components are then we end up with a series of parts which are difficult to replace. Each cube is likely to have complex interfaces with its neighbours because the television has not been designed around the combination of cubes. Instead, if we imagine removing a resistor in a television we will find the task relatively simple. We need not worry about the material our replacement is made from, nor whether it works exactly as its predecessor did. As long as the inputs and outputs match the previous resistor, we can be sure that our replacement will function within the television. Shapiro says that:

²⁰⁴ Noë 2004, p. 26

²⁰⁵ Shapiro, Lawrence A. 2004: *The Mind Incarnate*, Cambridge, Massachusetts: MIT Press, p. ix

²⁰⁶ Shapiro 2004, p. xi

²⁰⁷ Shapiro 2004, p. xi

²⁰⁸ Haugeland, John 1995: ‘Mind Embodied and Embedded’ in *Mind and Cognition: Philosophical Perspectives on Cognitive Science and Artificial Intelligence*, *Acta Philosophica Fennica* 58, ed. L. Haaparanta and S. Heinämaa, p. 212

²⁰⁹ Shapiro 2004, pp. 177-9

“Through its narrow interface, the resistor is able to influence other components in the system while remaining isolated from the behaviour of its surrounding components.”²¹⁰

The resistor, therefore, is a prime example of a component. Shapiro’s argument is thus, that the interface between brain and body is not narrow, but wide²¹¹. The brain is not isolated from the behaviour of the body, and so cannot be considered a mere component of the human. As such, dividing the brain and body is like dividing a television into arbitrary cubes. In doing so we in fact divide components in half, so that they can no longer operate. Alternatively, if the body and brain are easily separated, and the brain can continue to function apart from the body, then it would seem that the brain should be considered as a component – as isolated from the body in its own operations. The question therefore is how Shapiro establishes that the interface between brain and body is wide.

Our line of investigation will be to look at the argument for EMT, which suggests that embodiment is particularly significant in the continued operations of the mind. If we establish that the ‘interface’ between brain and body is in fact complex, then it seems that the brain and body are not separable in the sense that Shapiro rejects. And if we do so, we may be able to establish the necessity of the body in our psychological continuity.

5.4) Separability and the Embodied Mind

According to Shapiro, the Separability Thesis (ST) tells us that a mind very like, if not exactly alike to a human mind could exist in something very different from a human body. And in opposition to this, Shapiro prefers the Embodied Mind Thesis (EMT), according to which “minds profoundly reflect the bodies in which they are contained.”²¹² They do so to the extent that from the kind of mind we encounter, we can make a series of assumptions about the body in which it is contained. Specifically he argues that the way our bodies process information about the world is directly involved in perception of the world²¹³. Our psychologies, he thinks, would be dramatically different if we had different kinds of perceptual apparatus.

For Shapiro the ST can be divided into two, possibly coincident, groups of thought – one, that the mind is best understood as a computer program or formal system which can be implemented in any kind of ‘hardware’. Someone who espouses this kind of view is labelled,

²¹⁰ Shapiro 2004, p. 177

²¹¹ Shapiro 2004, p. 179

²¹² Shapiro 2004, p. 167

²¹³ Shapiro 2004, pp. 185-191

by Shapiro, as a supporter of ‘body neutrality’²¹⁴. By thinking of the mind as simply a formal system, much like a game of chess, then we can imagine different kinds of instantiations of the mind. In the same way that a game of chess can be played on a wooden set with physical pieces, or alternatively on a computer, the mind could be instantiated in vastly different entities than human bodies²¹⁵. The second line of thought is called ‘envatment’ by Shapiro: a proponent of envatment will also be someone who believes human cognition should be understood as the filling in the ‘sense-think-act’ sandwich²¹⁶. For these philosophers, mind is entirely separable from perceptual activities, and from action – the brain could literally be in a vat, and this would not affect our ability to think because interfaces between mind and perception and between mind and action are clearly defined²¹⁷.

It is worth pointing out here that envatment provides no argument against theories of embodied cognition, because successful envatment presupposes that the inputs and outputs of Hurley’s ‘Classical Sandwich’ are both present to the envatted brain²¹⁸. Hurley has pointed out that this does not prove that the mind is in fact meaningfully separable from the body, but only that if envatted, the inputs and outputs would have to be of an appropriate nature.²¹⁹ But, if the mind only responded to inputs of a certain type, i.e. a certain visual input as received from a creature with two eyes, then we would need to ensure our input mimicked the kind of visual input expected. Despite this, Shapiro’s arguments in favour of embodiment are important because it illustrates why brain-swapping cases do not give us personal identity. We cannot, it will turn out, use embodiment to defend our account of personal identity from the possibility of reduplication, but we will be able to re-evaluate the possible cases of reduplication, and narrow them down to a certain type of duplication involving body as well as brain.

For Shapiro, if we can show the unlikelihood of envatment and body neutrality then we can show that the ST is also unlikely, which will thus lead us to favour the EMT²²⁰. If the connections between mind and body cannot be reduced to a simple series of inputs and outputs, and also if there are strong constraints on the kind of body a creature can have, based on the kind of mind they have, then the mind cannot be clearly separated from the body.

²¹⁴ Shapiro 2004, p. 170-5

²¹⁵ Shapiro 2004, p. 171

²¹⁶ Shapiro 2004, p. 175

²¹⁷ Shapiro 2004, p. 179

²¹⁸ Hurley (Forthcoming), p. 18

²¹⁹ Hurley (Forthcoming), p. 18

²²⁰ Shapiro 2004, pp. 185-6

One example he gives as proof of embodied thought is of visual perception (and we can see a similarity to O'Regan and Noë's account of sensorimotor contingencies, although there are significant differences). Shapiro claims that "the human mind is intimately tailored to the human body."²²¹ So, my two eyes present the world to me in a different way than having one eye or five eyes would, which means also that the kind of mind I have processes visual perception in a two-eye kind of way²²². By having two eyes my visual system can calculate the relative depth of different objects by a certain kind of processing. So, Shapiro explains that "the brain uses the fact that the images appear at different co-ordinates on each retina to calculate the relative depth of the objects. But – and this is the crucial point – the brain's processing makes use of disparity information from two eyes."²²³ If my brain was transported from my body to a new 'host' body with one eye then my brain would not be able to process the visual information presented to me, and would be unable to judge the relative depth of various objects. To explain his point Shapiro imagines trying to steer an aeroplane to a safe landing without any knowledge of aeroplanes but with the aid of a submarine instruction manual²²⁴. The information about operating a submarine is useless to you if you find yourself in an aeroplane. So too, inhabiting a body with ten limbs, four eyes and three ears would provide one with no information about the world if your brain can only process information garnered using two eyes and ears and four limbs. So, Shapiro thinks, "humanlike bodies will have humanlike minds"²²⁵, having the former is required for having the latter.

Another example Shapiro gives is that of hearing: the spatial difference, locations and angle of a creature's auditory apparatus will affect the kind of information that is presented to the brain, which will in turn require different processes for sounds to be heard²²⁶. The placement of human ears on each side of the head gives us certain auditory information about the world that is then processed in a specific human-body related way.

Shapiro takes these ideas to show that:

"psychological processes are *incomplete* without the body's contributions. Perceptual processes *depend on and include* bodily structures. This means that a description of various perceptual capacities cannot maintain body neutrality, and it also means that an organism with a non-human body will have nonhuman visual and auditory psychologies."²²⁷ (author's italics)

²²¹ Shapiro 2004, p. 186

²²² Shapiro 2004, pp. 186-9

²²³ Shapiro 2004, p. 187

²²⁴ Shapiro 2004, pp. 186-7

²²⁵ Shapiro 2004, p. 182

²²⁶ Shapiro 2004, p. 189-90

²²⁷ Shapiro 2004, p. 190

5.5) The Problem

It is not clear that sensorimotor contingencies or Shapiro's concern with embodiment will help us in dealing with the problem of reduplication in personal identity, for O'Regan and Noë, and Shapiro deal in phenomenological experience, and it is not obvious that phenomenology has much to offer an account of personal identity. Personal identity is often thought to consist in continuity of mental states, and possibly in bodily continuity, but is not thought to require continuity in the way our experiences feel. This does not, of course, mean that our account of personal identity could not be broadened to include continuity of phenomenological experience.

At most we may be persuaded that continuing to experience the world in the same way is significant enough for personal identity, and that this continuation requires continued embodiment. However, there is nothing in our teletransportation thought experiment that counters this claim. When the replica is created on Mars the body is created as an exact copy of the body I had on Earth. And presumably the instantiation of my entire psychology will give me a good working knowledge of how my movements will affect my perceptual experience. Parfit is careful to state that the replica produced on Mars has an exact copy of my body on Earth. This ensures that the way I experience the world will not have altered due to a change in sensorimotor contingencies.

By stipulating that teletransportation involves an exact reduplication of mind and body, Parfit has ensured that these arguments for embodiment do not have any significance. When I am teletransported to Mars I lose one body on Earth, but a new, qualitatively identical one is created on Mars. Parfit does not need to defend the view that minds can be instantiated in robots, or that minds need not exist in close coupling with a certain kind of body. At no point do I exist without a body of the form that my original body had, and made of similar matter also. Parfit does not even suggest that my psychological states are uploaded to a mechanical replica, who looks like me but has a core of steel and wires. He is careful to state that my replica looks just as I do, and presumably does so all the way in. Replica on Mars is not superficially the same, but the same in total.

So, on Mars I have two ears and two eyes as I do on Earth. There is no reason to suppose that visual and auditory, not to mention any other perceptual modality's, information is not processed in the way a human body is on Earth. We may well draw the line at considering Replica a human, given that she was not born on Earth, and did not grow up from a baby to become an adult. Whatever kind of a creature we call Replica, she is certainly

human-like both in the matter from which she is made, and in the way she processes information about the world. Shapiro's arguments can only show that human-like minds require human-like bodies, not that there is any necessity that for a human mind to operate it must be made from the same physical matter.

The way that embodiment does affect our assessment of personal identity involves thought experiments about brain transplants. When Brown's brain is supposed to be placed into Robinson's body, the example of Brownson is supposed to illustrate our intuitions that it is the brain, in other words the mind, that is important in personal identity, and not the rest of the body. However, our reaching this conclusion relies on us being able to make sense of Brownson and to believe that he continues to have the same beliefs and other mental states as Brown had, and perhaps also the same phenomenology. But if we include phenomenology as part of our criterion of personal identity, then we may not be able to imagine Brownson as having any phenomenology, or at least, as having a severely altered phenomenology.

It is not the case that the brains of Brown and Robinson could be swapped from patient to patient without disrupting the kinds of possible experiences that each has, as these will be dependent on bodily features. The sensorimotor account of visual experience suggests that it is in exercising our knowledge of the laws of sensorimotor contingency that we perceive, and some sensory contingencies relate to our visual apparatus, as well as being determined by objects in the world. A change in our sensing apparatus will therefore change the nature of the laws of sensorimotor contingency, at first rendering us without phenomenology as we are unable to make sense of the new contingencies, and later once we have become accustomed to a new set of contingencies, giving us a different phenomenology. A difference as seemingly insignificant as my eyes being slightly further apart could therefore have significant effect on the phenomenology of my experiences. And O'Regan and Noë make clear that there are perhaps an infinite number of contingencies which must be taken into account.

Similarly, Shapiro's work suggests clearly that differences in the detail of the structure of the body, such as the spacing between the ears, or between the eyes, has resounding affects on the brain's ability to process the information it receives. It is not merely important that my body is the same in general structure, but the specifications of body parts are as significant in our ability to perceive.

It is because of this that teletransportation can give us reduplication, but Brownson in fact should not count as a case of personal identity. Once Brown's brain has been transplanted into Robinson's body, our resultant Brownson is at first unable to have phenomenological

experiences. Only once he can exercise a knowledge of the new set of sensorimotor contingencies will he have perceptions, and these perceptions will be different in quality to Brown's phenomenological experiences.

5.6) Embodiment and Personal Identity

The reason that arguments for embodiment have not given us any help in our defence of accounts of personal identity from the problem of reduplication is that embodiment only argues for the significance of the *kind of body* an individual requires, and not for the importance of the continuity of the same physical matter.

Returning to Shoemaker's Brownson thought experiment, we can see that our intuition that Brownson is Brown does not capture the significance of the body itself in our experiences. When Brown's brain is placed in Robinson's body there is some reason to think that Brownson will have the memories, intuitions, desires and beliefs that Brown had. However, whilst Brownson has Brown's brain and presumably connected to this, Brown's propositional attitudes, Brownson and Brown do not have the same body. Brownson would eventually have altered phenomenology, which would exhibit one kind of continuity that is missing. The lesson we should learn from the embodiment paradigm is that it is brain and body continuity that is necessary for psychological continuity: the brain alone will not suffice.

As creatures with brains and bodies, both have a role to play in our identity. When we examined O'Regan and Noë's and Shapiro's claims about embodiment we saw the significance they place on continuity of the structure of the body. According to the sensorimotor account of visual perception, it is the specific laws of contingency that arise from the particulars of one's body which are required for one to have any visual perception. My perception is the exercise of my knowledge of these laws, so a difference in the nature of the contingencies, will result in a change of phenomenology. A change in body will result in a different set of contingencies operating, and this will have the consequence first of my lacking knowledge of these contingencies, and later of my phenomenology differing to the phenomenology I experienced with the earlier body. It is for this reason that the kind of body we have is significant in personal identity.

There are other ways of describing the brain transplant thought experiment which would surmount this obstacle that we have attempted to place in the way of duplication. Parfit imagines that his brain is divided in two, into right and left hemispheres, and then whilst one hemisphere is placed in the body of one of his identical triplet brothers, the other is placed in

the body of the other triplet²²⁸. In this case the body of each triplet is qualitatively identical to the other two.

Each hemisphere is responsible for different tasks, but it might seem reasonable to think that with only the left hemisphere of the brain we could not learn to perform tasks normally associated with the right hemisphere, and vice versa²²⁹. Patients with brain damage to one hemisphere, leaving them with the use of only the other hemisphere, can continue to live and continue to be the same person²³⁰. In Parfit's imagined brain transplant, our intuitions will be that each resultant triplet has as much claim to be Parfit as the other. And in this case, each resultant has the same kind of body as Parfit, has as much of his brain as the other, and presumably is as psychologically continuous with Parfit as the other. To be identical with Parfit they would have to be numerically identical with each other. So, they cannot be the same person, yet this might seem to be a legitimate example of duplication.

In fact, our intuitions about the case rest on the assumption that we have independent seats of consciousness in each hemisphere²³¹. For split-brain patients there may be some cases where one hemisphere learns to perform cognitive functions that it could not before, but these can be explained by there still being some sub-cortical connections between hemispheres, even though the main cortical connections have been severed. Thus, the conclusion that one hemisphere has learnt the functions of the other is not the only one, or the most obvious one. I will leave it as an open question here as to how we should interpret the evidence from commissurotomy patients (patients in which the corpus callosum has been severed) as it is a complex issue, but I think it is important to point out that Parfit's assumptions about the case are far from trivial. Regardless of this, Parfit's understanding of the brain transplant thought experiment has much in common with that of teletransportation in which body and mental states are both qualitatively identical. In an attempt to avoid the issues surrounding the interpretation of consciousness in commissurotomy patients I will focus on avoiding duplication through teletransportation, rather than brain transplant.

5.7) Teletransportation III

So, in both teletransportation and our altered brain transplant the resultants meet our criteria of personal identity. For psychological continuity we need the same kind of brain, and

²²⁸ Parfit 1987, p. 254-255

²²⁹ Parfit 1987, p. 254

²³⁰ Parfit 1987, p. 254

²³¹ Nagel, Thomas 1971: 'Brain bisection and the unity of consciousness' in *Synthese*: 22: 3-4: 396-413

we need the same kind of body. To ensure that duplication cannot occur there seems to be only one possible addition to our criterion: continuity of brain matter. Whilst we saw in chapter one that most body cells are replaced several times over the course of a lifetime, the cells of the brain remain through most of one's life. Could they therefore be themselves significant in personal identity? By adding continuity of brain matter as a stipulation we would ensure that teletransported individuals could not be the same person as an earlier individual, and hence ensure that duplication could not occur by teletransportation. Moreover, the possibility of brain's being divided into two hemispheres, both with a seat of consciousness and psychological continuity with the earlier individual does not seem to be a viable option in light of the discussion above. Could brain continuity therefore be the missing part of our criterion?

Continuity of brain matter seems to be implausible as part of our criterion because we have no real motivation to include it. What matters to us is our mental states, and not how they are realised. I refer again to Parfit's analogy with the prosthetic eye: whilst the patient's new eye is not made of carbon-based matter, we can still call it an eye and we still think the patient can see by using the computer and glass lens machinery. Although brain cells are not replaced over a lifetime, this does not prove that they could not be replaced either with new biological cells, or silicon-based neuronal implants. The brain is significant only in so far as it ensures psychological continuity, so plays a part in our criterion only because it might be the right kind of cause for two person-stages being psychological connected. We have little, if any, reason for claiming that the matter of the brain could be of significance to personal identity.

Conclusion

As long as personal identity is understood in terms of psychological continuity it is not obvious that we will be able to avoid the problem of reduplication. Unless we posit some special substance that continues to exist as long as we do, then duplication will always be an issue.

However, we have learnt important lessons about psychological continuity which have led us to alter our criterion of personal identity and our criterion of survival. Whilst it may not be possible to avoid the possibility of an individual being duplicated, we have to rethink the easy assumptions which are made about the brain and body in thought experiments about duplication.

In my dissertation I have examined three kinds of externalist argument that have led us to conclusions about the significance of a causal link between person-stages, and of the importance of the environment and of the body in continuing to be the same person.

Traditional arguments about externalism suggest that unless the right causal connection between reference and referent has been established, an individual's mental state has no content. If a person-stage is merely psychologically similar to another, in other words, there is no causal connection between the two, then it seems as though the mental states of the later person-stage will not have the right causal connection to objects in the world, rendering his mental states without content. So, in our criterion of personal identity there must be a causal connection between two person-stages in order for them to belong to the same person.

As for active externalism, we discovered that, whilst in principle the extended mind presents us with a way in which persons may extend into the environment around them, unless we claim that they always do so, and in such a way that cannot be duplicated, then things like teletransportation might still be able to occur successfully. What this means is that the teletransporter must be able to duplicate any significant features of the environment in order for there to be a relation of identity between Replica and the original person on Earth.

Lastly I examined embodiment. Whilst embodiment provides a series of reasons for thinking that the body is irreducibly involved in the operations of the mind, this will not ultimately aid us in our defence of psychological continuity from reduplication. Examples of reduplication often involve duplication of the body as a whole, and not just the brain, or one's mental states in isolation from any kind of physical instantiation. Whilst duplication of one's mental states in the body of another human might have a large affect on our identity as a particular person, duplication of the mental combined with a qualitatively identical body does not.

Thus, unless we do posit some one thing that cannot be duplicated in the way that it seems both psychology and bodily form can be, our account of personal identity cannot avoid this central problem: personal identity relies on the uniqueness of the relation between one person-stage at time t_1 and another at time t_2 .

Duplication remains a problem for our account of personal identity, and therefore Parfit's motivation for preferring survival to personal identity as what should be of concern to us remains. Nevertheless, in light of the theories of the embodied and embedded mind, the way we think of personal identity is not as straightforward as Parfit presents it as being.

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